

# **marantz®**

## **Model AV500 User Guide**

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**AV Surround Preamplifier**

## ENGLISH

### WARRANTY

For warranty information, contact your local Marantz distributor.

### RETAIN YOUR PURCHASE RECEIPT

Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with Marantz.

### IMPORTANT

When seeking warranty service, it is the responsibility of the consumer to establish proof and date of purchase. Your purchase receipt or invoice is adequate for such proof.

### FOR U.K. ONLY

This undertaking is in addition to a consumer's statutory rights and does not affect those rights in any way.

## FRANÇAIS

### GARANTIE

Pour des informations sur la garantie, contacter le distributeur local Marantz.

### CONSERVER L'ATTESTATION D'ACHAT

L'attestation d'achat est la preuve permanente d'un achat de valeur. La conserver en lieu sûr pour s'y reporter aux fins d'obtention d'une couverture d'assurance ou dans le cadre de correspondances avec Marantz.

### IMPORTANT

Pour l'obtention d'un service couvert par la garantie, il incombe au client d'établir la preuve de l'achat et d'en corroborer la date. Le reçu ou la facture constituent des preuves suffisantes.

## DEUTSCH

### GARANTIE

Bei Garantiefragen wenden Sie sich bitte an Ihren Marantz-Händler.

### HEBEN SIE IHRE QUITTING GUT AUF

Die Quittung dient Ihnen als bleibende Unterlage für Ihren wertvollen Einkauf. Das Aufbewahren der Quittung ist wichtig, da die darin enthaltenen Angaben für Versicherungszwecke oder bei Korrespondenz mit Marantz angeführt werden müssen.

### WICHTIG!

Bei Garantiefragen muß der Kunde eine Kaufunterlage mit Kaufdatum vorlegen. Ihre Quittung oder Rechnung ist als Unterlage ausreichend.

## ITALIANO

### Condizioni di garanzia

L'apparecchio è garantito per 365 giorni dalla data di acquisto comprovata da un documento attestante il nominativo del rivenditore e la data di vendita. La garanzia sarà prestata con la sostituzione o riparazione gratuita delle parti difettose.

Non sono coperti da garanzia difetti derivanti da uso improprio, errata installazione, manutenzione effettuata da personale non autorizzato o, comunque, da circostanze che non possano riferirsi a difetti di funzionamento dell'apparecchio. Sono inoltre esclusi dalla garanzia gli interventi inerenti l'installazione e l'allacciamento agli impianti di alimentazione.

Gli apparecchi verranno riparati presso i nostri Centri di Assistenza. Le spese ed i rischi di trasporto sono a carico del cliente.

La casa costruttrice declina ogni responsabilità per danni diretti o indiretti provocati dalla inosservanza delle prescrizioni di installazione, uso e manutenzione dettagliate nel presente manuale.

Per informazioni sull'abbonamento al Servizio Assistenza postgaranzia e per conoscere l'indirizzo dei Centri Assistenza Marantz rivolgetevi al nostro servizio consumatori (telefono 1678-20026 - numero verde).

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ENGLISH:	This unit meets the requirements of EEC Recommendation 82/499.
FRANÇAIS:	Cet appareil est conforme aux directives 82/499 de la CEE.
DEUTSCH:	Dieses Gerät entspricht der EWG-Empfehlung 82/499.
ITALIANO:	Questo apparecchio è conforme ai requisiti della direttiva CEE 82/499.

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## FOREWORD

This section must be read before any connection is made to the mains supply.

### WARNINGS

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not push anything inside the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.

## MAINS VOLTAGE SETTING

Your Marantz product has been designed to comply with the household power and safety requirements in your area.

The 02/ version can be powered by 230 V AC.

The 05/ and 07/ versions can be powered by 240 V AC.

On the rear panel of the 01/ version there is a voltage selector (2-position). Be sure to set the voltage selector to the mains voltage of your area before using the unit.

### IMPORTANT:

This apparatus is fitted with an approved moulded 13 Amp plug. To change a fuse in this type of plug proceed as follows:

1. Remove fuse cover and fuse.
2. Fix new fuse which should be a BS1362 5A, A.S.T.A. or BSI approved type.
3. Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5A. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5A.


**NOTE:** The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.

## HOW TO CONNECT A PLUG

The wires in the mains lead are coloured in accordance with the following code:

BLUE—"NEUTRAL" ("N")

BROWN—"LIVE" ("L")

1. The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
2. The BROWN wire must be connected to the terminal which is marked with the letter "L" or coloured RED.
3. Do not connect either wires to the earth terminal in the plug which is marked by the letter "E" or by the safety earth symbol  or coloured green or green-and-yellow.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead — not simply over the two wires.

## COPYRIGHT

Recording and playback of any material may require consent. For further information refer to the following:

- Copyright Act 1956
- Dramatic and Musical Performers Act 1958
- Performers Protection Acts 1963 and 1972
- any subsequent statutory enactments and orders

## ABOUT THIS USER GUIDE

Refer to the Figures on the pages at the rear of this user guide. The callout numbers on the Figures correspond to those found in the text. All references to the connections and controls that are printed in **BOLD** type are as they appear on the unit.

## PRECAUTIONS

The following precautions should be taken when operating the equipment.

### GENERAL PRECAUTIONS

When setting the equipment ensure that:

- the ventilation holes are not covered
- air is allowed to circulate freely around the equipment
- it is on a vibration free surface
- it will not be exposed to interference from an external source
- it will not be exposed to excessive heat, cold, moisture or dust
- it will not be exposed to direct sunlight
- it will not be exposed to electrostatic discharges

In addition, never place heavy objects on the equipment.

If a foreign body or water does enter the equipment, contact your nearest dealer or service center.

Do not pull out the plug by pulling on the mains lead, hold the plug.

It is advisable when leaving the house, or during a thunderstorm, to disconnect the equipment from the mains supply.

## INTRODUCTION

### Dolby Surround Sound

Many major motion pictures first presented in theaters with Dolby Stereo sound are available for home video encoded with Dolby Surround sound. The Dolby Pro-Logic Surround decoder circuitry in the Marantz AV500 provides excellent realization and articulation of the original surround sound motion picture presentation.

In order to achieve the optimum balance of front to surround sound as intended by the motion picture director, please adjust the surround and center balance using the Dolby test tone procedure. When the balance is set correctly, the sound of the test tone will be equal from all of the speakers.

Once this has been set, the surround balance obtained conforms to the surround balance originally intended by the film's director and should not need any further adjustment. Further increasing the surround sound level will actually lessen the acoustic realism in almost all cases. Many motion pictures are mixed with surround sound that is not always immediately apparent to the listener, but has an appreciable effect anyhow. If the surround sound balance is set too high, then the fidelity of the front channel information will suffer noticeably. Dialog intelligibility through the front and center channels is significantly reduced if the surround level is set too high.

The amount of delay time should also be set very carefully. In the theater, the surround sound delay is adjusted according to the acoustics and dimensions of that particular theater. Since your own home theater room has its own specific dimensions, following the suggested time delay settings will result in a more realistic home theater experience. Too much time delay will result in an overly reverberant sound field, significantly diminishing the overall fidelity of the surround and front sounds.

Once you have become familiar with the types of surround sound effects incorporated into today's movies and television broadcasts, you may wish to experiment with different settings to improve the results. And, in order to compensate for a differences in residential acoustics and floor plans, some of the adjustments provided with the AV500 have a wide range of settings. However, we strongly recommend that you follow the suggested settings for the proper amount of time delay, as well as optimizing the system balance by using the Dolby test tone function provided. This will most likely provide the best possible results, rather than trying to use actual program material for initial system set-up and balance adjustment.

## FEATURES

### ● Dolby Pro-Logic and other surround modes

**In addition to the Dolby Pro Logic and 3-channel Logic modes, four surround modes are provided for optimum surround effects according to the type of source.**

**An automatic input level and balance circuit is provided.**

### ● Wide variety of inputs and outputs

**Four inputs/outputs are provided for audio sources and five inputs/outputs (with five S-VIDEO jacks) are provided for Audio and Video sources.**

### ● Pre-programmed intelligent remote

**The remote control codes of 12 TV, 13 VCR, and 2 LD player manufacturer's codes have already been preset in the remote control unit. So, you do not have to do complicated "learning". The remote control unit can simply be used with your existing equipment.**

### Precautions in connection

- Be sure to unplug the power cable from the AC outlet or turn off the POWER/STANDBY switch before proceeding with any connection.
- Connect one cable at a time observing the "input" and "output". This will avoid any cross connection between channels and signal inputs and outputs.
- Insert the plugs securely. Incomplete connection may result in noise.
- Prior to connecting other audio and video equipment to the AV500, please read their owner's manuals.

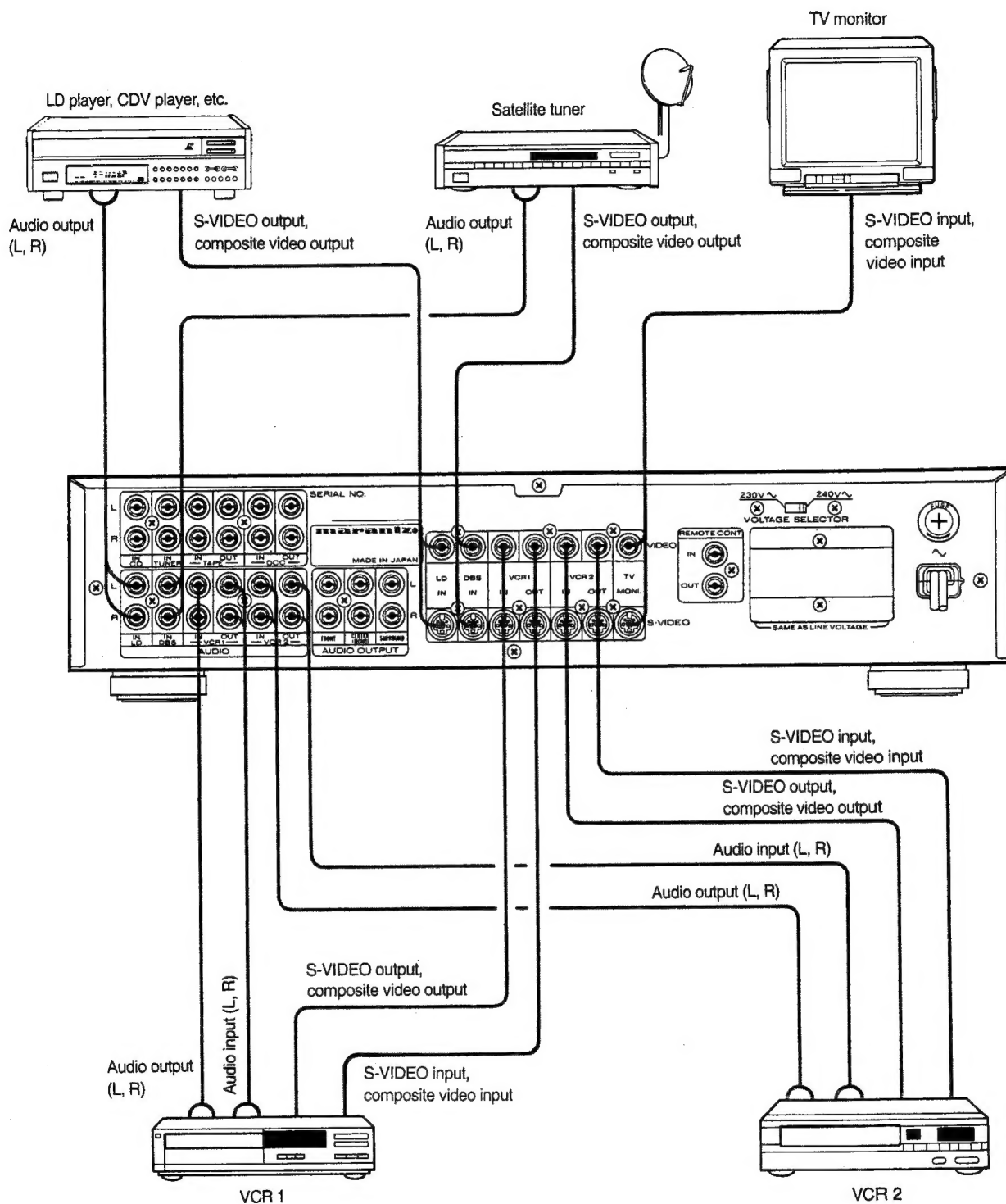
### Installation

If this unit or another electronic device incorporating a micro-computer is used at the same time with the tuner or television, picture disturbance or noise may occur. In such a case, install the unit according to the following guide points.

- Separate the unit as far as possible from the tuner or television.
- Place the antenna wire for the tuner or TV apart from the power cable and audio and video connection cables of this unit.
- Since this phenomenon is likely to occur when using an indoor antenna and/or 300-ohm feeder wire, we recommend using an outdoor antenna and 75-ohm coaxial cable.

# CONNECTIONS

## 1. Connections of video equipment



## Connection of Satellite tuner

### (1) Video input

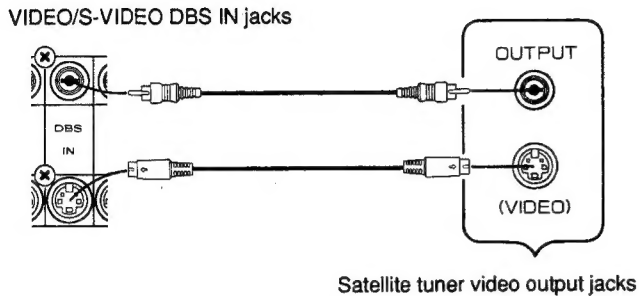
The AV500 has two types of video input jacks; the S-VIDEO jack and composite video jack.

- **Connection to S-VIDEO input jack**

Using an S-VIDEO cable, connect the S-VIDEO DBS/IN jack of this unit to the S-VIDEO output jack of the Satellite tuner.

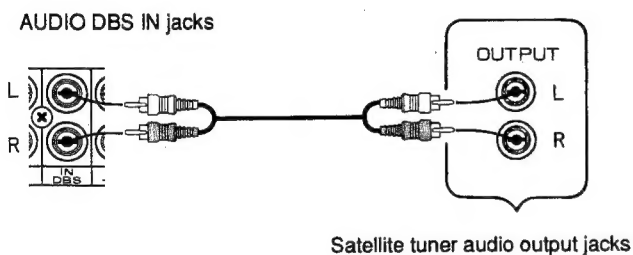
- **Connection to composite video input jack**

Using an RCA pin cable, connect the VIDEO DBS/IN jack of this unit with the composite video output jack of the Satellite tuner.



### (2) Audio input

Connect the AUDIO DBS IN jacks with the audio output jacks of the Satellite tuner.



## Connection of LD player

### (1) Video input

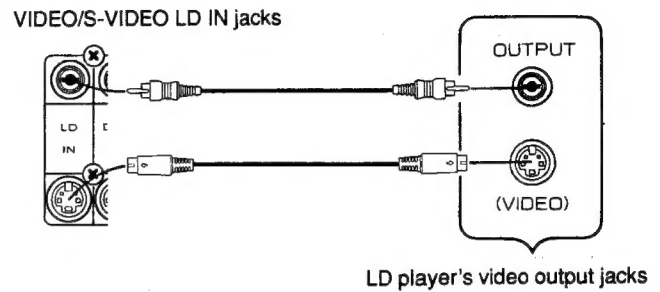
The AV500 has two types of video input jacks; the S-VIDEO jack and composite video jack.

- **Connection to S-VIDEO input jack**

Using an S-VIDEO cable, connect the S-VIDEO LD/IN jack of this unit to the S-VIDEO output jack of the LD player.

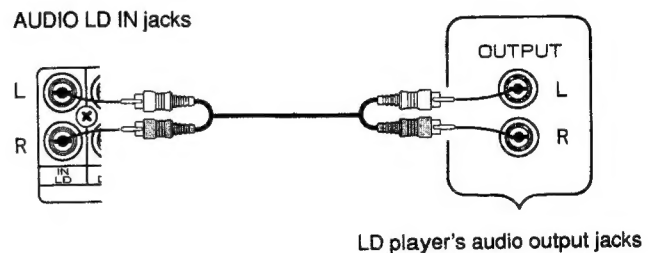
- **Connection to composite video input jack**

Using an RCA pin cable, connect the VIDEO LD/IN jack of this unit with the composite video output jack of the LD player.



### (2) Audio input

Connect the AUDIO LD IN jacks with the audio output jacks of the LD player.



## Connection of VCRs (VCR 1, VCR 2)

The AV500 has two types of video input jacks; the S-VIDEO jack and composite video (RCA-pin) jack.

### (1) Video input/output

#### ● Connection to S-VIDEO input jack

Using an S-VIDEO cable, connect the S-VIDEO VCR1/IN jack of this unit with the S-VIDEO output jack of the VCR.

#### ● Connection to S-VIDEO output jack

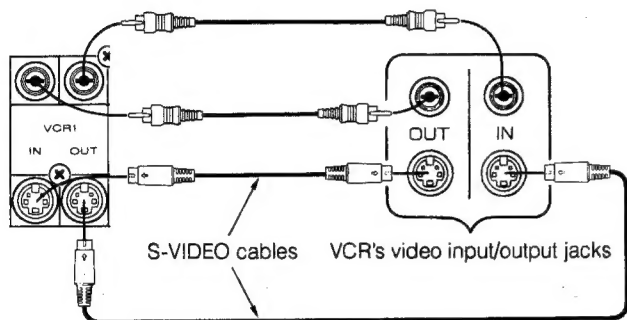
Using an S-VIDEO cable, connect the S-VIDEO VCR1/OUT jack of this unit with the S-VIDEO input jack of the VCR.

#### ● Connection to composite video input jack

Using a RCA pin cable, connect the VIDEO VCR1/IN jack of this unit with the composite video output jack of the VCR.

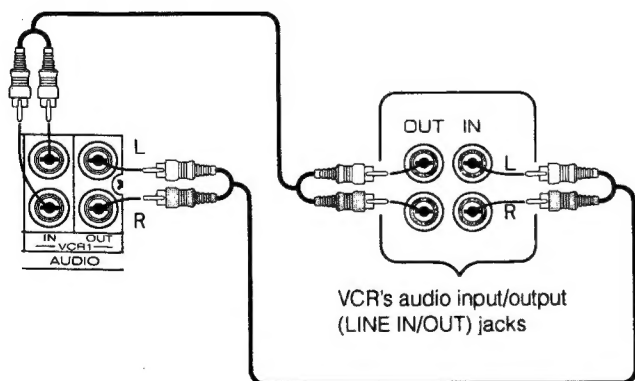
#### ● Connection to composite video output jack

Using a RCA pin cable, connect the VIDEO VCR1/OUT jack of this unit with the composite video input jack of the VCR.

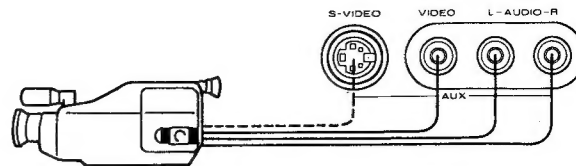


### (2) Audio input/output

Connect the AUDIO VCR1 IN jacks with the audio output jacks of the VCR. Also connect the AUDIO VCR1/OUT jacks with the audio input jacks of the VCR. The connections of VCR2 are the same as the above.



## Connection to AUX jacks

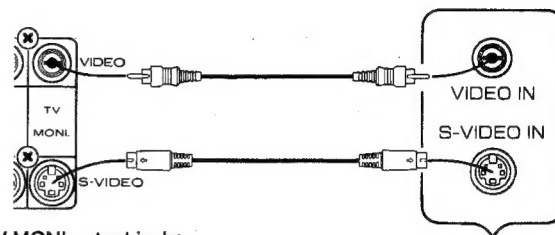


Camcorder

Connect the video and audio cables from a camcorder or other video equipment to the AUX input jacks on the front panel of this unit.

## Connection of TV monitor

The AV500 has two types of video input jacks; the S-VIDEO jack and composite video (RCA pin) jack.



TV MONI output jacks

TV's video input jacks

## S-VIDEO JACKS

Connections through the S-VIDEO jacks can be made if the LD player, VCR or TV monitor has an S-VIDEO jack.

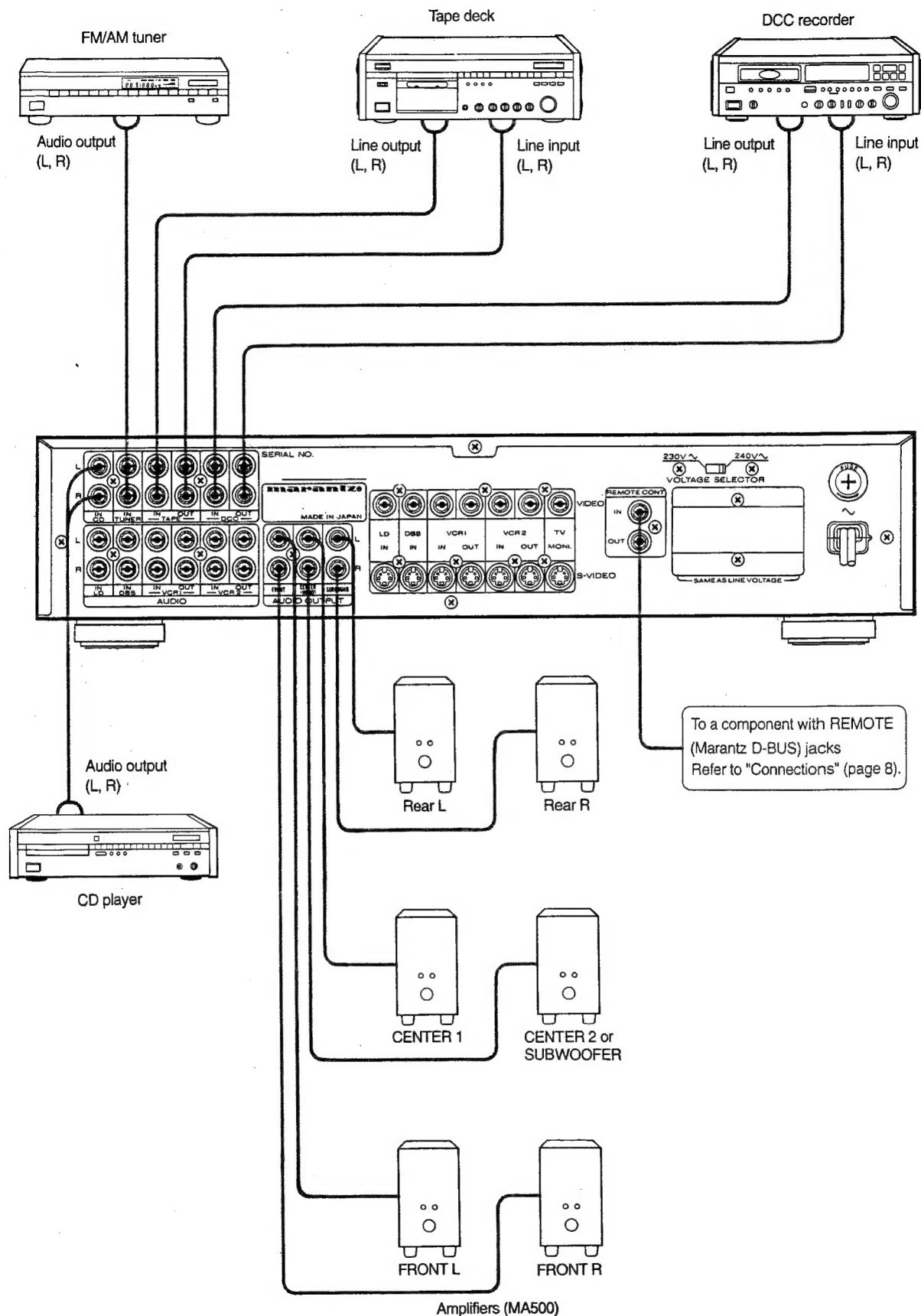
The S-VIDEO jacks transmit video signal by separating its Y (luminance) and C (chrominance) components.

For the operations of the components connected through the S-VIDEO jacks, read the owner's manual supplied with them.

- The video circuits of S-VIDEO and composite (VIDEO) are independent. Therefore, the signal input through a pin jack is output through a pin jack, and the signal input through an S-VIDEO jack is output through an S-VIDEO jack.
- The S-VIDEO jacks transmit the video signal only. The audio connection is always required.

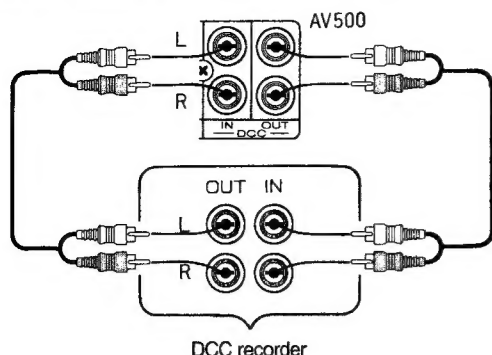


## 2. Connections of audio equipment



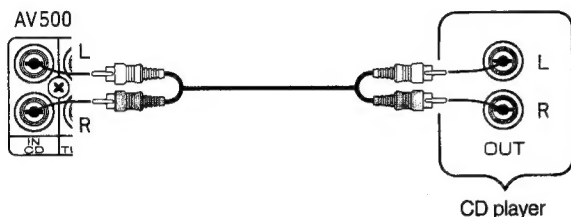
### Connection of DCC recorder

- Connect the record (IN) and play (OUT) jacks of the DCC recorder to the DCC OUT and IN jacks of this unit.



### Connection of CD player

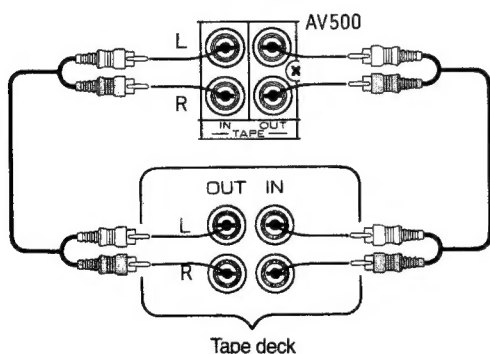
- Connect the output jacks of the CD player to the CD IN jacks.



### Connection of tape deck

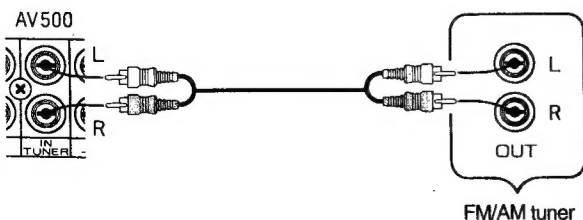
The AV500 has the capability for connecting two tape decks. If the DCC recorder is not used, two analog tape decks can be connected to the AUDIO TAPE and DCC jacks.

- Connect the record (IN) and play (OUT) jacks of the tape deck to the TAPE OUT and IN jacks of this unit.



### Connection of AM/FM tuner

- Connect the output jacks of the FM/AM tuner to the TUNER IN jacks.

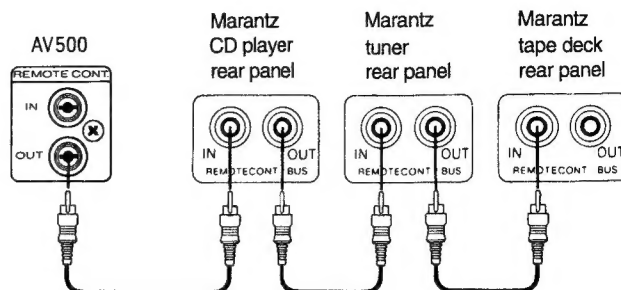


### Remote control bus connections

The AV500 is equipped with a remote control function. By connecting this unit's remote control jack to a Marantz tuner, CD player or tape deck equipped with remote control (D-BUS) jacks, the whole of the system can be controlled from a single remote control unit.

Using an RCA pin cable, connect the REMOTE CONT. OUT jack of this unit to the REMOTE CONT. BUS IN jack of another Marantz equipment.

The component connection sequence is not important.



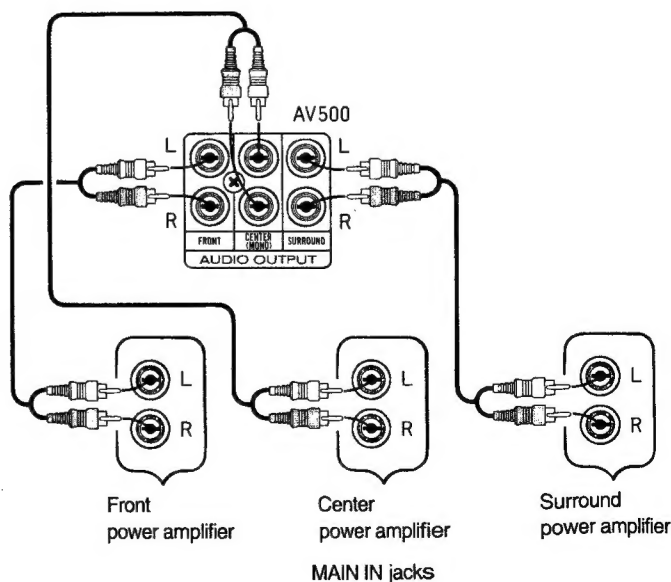
### Connection of power amplifiers

Using an RCA pin jack cable, connect the INPUT jacks of the power amplifiers to the AUDIO OUTPUT jacks of this unit and be sure all the connections of left and right are correct.

Depending on your own particular speaker system configuration, you will need from 2 to 6 individual power amp channels. A typical Pro-Logic surround system, using 1 center channel and 2 surround speakers with 2 main speakers would require 5 amplifier channels or five monaural amplifiers.

If the addition of a center channel speaker is not possible for Dolby Pro-Logic operation, choose the Phantom mode, which reproduces the center channel audio information via the main Left and Right speakers. In this case, a center channel power amplifier is not required.

If a single center channel speaker is used, only one amplifier channel is required. Two center outputs (identical output) are provided if you wish to use two center channel speakers and two power amplifier channels. Although this unit has two CENTER jacks, the signals output from these jacks are monaural so either of the jacks can be used for the connection.



## SPEAKER POSITIONING

### ● Speaker positioning

#### 1. Configuring a minimum system

##### (Figure 1)

You can easily set up a system to enjoy Dolby Pro Logic Surround by using two front speakers and two surround speakers.

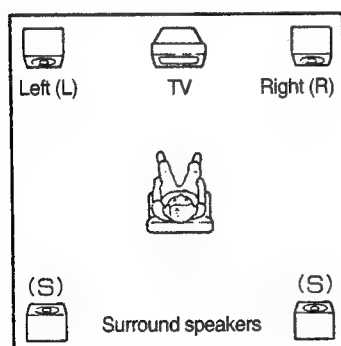
It does not matter whether your TV is stereo or monaural or TV monitor, as long as the TV is equipped with a video input jack.

It is recommended to use four speakers of the same type. If speakers of different sizes are used, use the better quality speakers for the front channels.

- Press the **CENTER MODE** button of the remote control unit to select the PHANTOM mode.

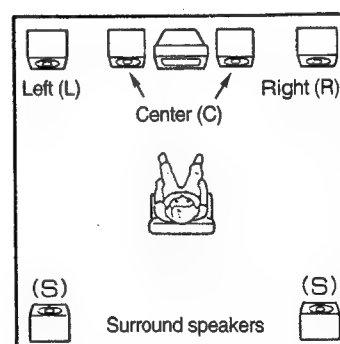
In the PHANTOM mode, the dialogue signal output to the Dolby Pro Logic center speaker is divided equally to the left and right front speakers.

(Connection examples)



(when center speakers are not used)

Figure 1



(when center speakers are used)

Figure 2

#### 2. Configuring a full-fledged system

##### (Figure 2)

Although this configuration requires the use of five or six speakers, you will be able to experience the full effect of Dolby Pro Logic Surround. Ideally all six speakers should be identical, but if speakers of different sizes are used, you will be able to achieve the best surround effect by using the best pair of speakers (the speakers with the best bass response) for the front channels.

Be sure to use anti-magnetic (shielded) type speakers for the center speakers. If the center speakers are not anti-magnetic, magnetism from the speakers may cause color irregularity in the TV picture.

It is often difficult to position the speakers in the ideal configuration shown in the figure. One of the big feature of the Dolby Pro Logic Surround system, is if the speakers cannot be positioned in the ideal configuration, clear surround effects can still be obtained.

Especially with the rear speakers, even if you cannot position them on the same floor level as the front speakers, you can mount them on the wall or ceiling or on top of furniture.

- Press the **CENTER MODE** button of the remote control unit to select the NORMAL or WIDE mode.

In the NORMAL mode, the low frequency elements are cut from the center signal and divided to the front L/R speakers. Therefore, small-sized center speakers can be used.

When the WIDE mode is selected, a full frequency range signal is provided to the center output. Use this setting only if your center speaker is capable of reproducing full range audio, including deep bass. If your center speaker is a compact unit with restricted deep bass capability, choose the NORMAL mode for best results.

- It is also possible to use one center speaker instead of two.

## FUNCTION AND OPERATION GUIDELINE

**Figure 1 Rear panel**

**① CD IN jacks**

Connect to the CD player.

**② TUNER IN jacks**

Connect to the AM/FM tuner.

**③ TAPE IN/OUT jacks**

Connect the IN jacks to the output (PLAY, OUT) jacks of the tape deck.

Connect the OUT jacks to the input (REC, IN) jacks of the tape deck.

**④ DCC IN/OUT jacks**

Connect the IN jacks to the output (PLAY, OUT) jacks of the DCC recorder.

Connect the OUT jacks to the input (REC, IN) jacks of the DCC recorder.

**⑤ LD IN (AUDIO) jacks**

Connect to the audio output jacks of the LD player.

**⑥ DBS IN (AUDIO) jacks**

Connect to the audio output jacks of your Satellite tuner.

**⑦ VCR1 IN/OUT (AUDIO) jacks**

Connect the IN jacks to VCR1's audio output (OUT) jacks.

Connect the OUT jacks to VCR1's audio input (IN) jacks.

**⑧ VCR2 IN/OUT (AUDIO) jacks**

Connect the IN jacks to VCR2's audio output (OUT) jacks.

Connect the OUT jacks to VCR2's audio input (IN) jacks.

**⑨ FRONT OUTPUT jacks**

Connect to the MAIN IN jacks of the front channel power amplifier(s).

**⑩ CENTER OUTPUT jacks**

Connect to the MAIN IN jacks of the center channel power amplifier(s).

As these two jacks output the same monaural signal, a monaural power amplifier can be used for the center channel.

**⑪ SURROUND OUTPUT jacks**

Connect to the MAIN IN jacks of the surround channel power amplifier(s).

**⑫ LD IN (VIDEO/S-VIDEO) jacks**

Connect the LD IN jack to the video output of the LD player.

You can select S-VIDEO or composite (VIDEO) according to the LD player.

**⑬ DBS IN (VIDEO/S-VIDEO) jacks**

Connect the DBS IN jack to the video output of the Satellite tuner.

You can select S-VIDEO or composite (VIDEO) according to the Satellite tuner.

**⑭ VCR1 IN/OUT (VIDEO/S-VIDEO) jacks**

Connect the VCR1 IN jack to VCR1's video output (OUT) jack.

Connect the VIDEO VCR1 OUT jacks to VCR1's video input (IN) jack.

You can select S-VIDEO or composite (VIDEO) according to the VCR.

**⑮ VCR2 IN/OUT (VIDEO/S-VIDEO) jacks**

Connect the VCR2 IN jack to VCR2's video output (OUT) jack. Connect the VIDEO VCR2 OUT jacks to VCR2's video input (IN) jack.

You can select S-VIDEO or composite (VIDEO) according to the VCR.

**⑯ TV MONI. (VIDEO/S-VIDEO) output jacks**

Connect the TV MONI jack to your TV's video input (VIDEO IN) jack. You can connect your video equipment by using either the S-VIDEO jacks or instead using the composite (VIDEO) jacks.

**⑰ REMOTE CONT. IN/OUT terminals**

Connect to a MARANTZ component equipped with remote control (D-BUS) terminals.

**⑱ Power cable**

Plug into a household AC power outlet.

**Figure 2 Front panel controls**

**⑲ POWER/STANDBY switch**

Press this switch to turn on the power of the unit. Press it again to turn the unit off.

When the power is on, the power can be turned ON/OFF by using the POWER key on the remote control unit.

To allow the remote control to turn the power ON/OFF, leave this POWER/STANDBY switch to the ON position.

**⑳ STANDBY indicator**

When the power is turned OFF (STANDBY mode) by using the remote control, this indicator lights up to indicate that the unit is in the standby mode.

**㉑ DELAY TIME button**

Controls the delay time.

This button is not effective when the DSP mode is STEREO or 3 CHANNEL LOGIC.

When the DSP mode is DOLBY SURROUND, this button adjusts the delay time from 15 to 30 mS. In other DSP modes, this button adjusts it from 0 to 90 mS.

**㉒ TAPE COPY button**

Press this button for audio dubbing to the tape deck(s).

When this button is pressed, the source is switched in the following sequence:



**㉓ VCR1 COPY button**

Press this button for video and audio dubbing onto VCR1.

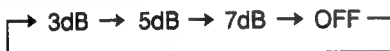
When this button is pressed, the source is switched in the following sequence:



**㉔ BASS EQ button**

Controls the low frequency level.

When this button is pressed, the BASS EQ level is changed in the following sequence:



The center frequency of the BASS EQ is approximately 80 Hz.

**㉕ DSP MODE button**

Selects the surround modes.

When the button is pressed, the DSP mode is changed in following sequence:



The STEREO mode refers to normal stereo playback.

**㉖ Infrared sensor (IR SENSOR)**

The infrared signal from the remote control is received through this sensor.

To transmit remote control signals accurately, aim the transmitter end of the remote control at the IR SENSOR on the front panel.

**㉗ Character display**

Displays the operating status of the AV500 in alphanumeric characters.

**㉘ Function selector switches**

These switches are used to select the source to be input to the unit via the rear panel input jacks.

The video function selector, such as LD, DBS, VCR1, VCR2, and AUX, selects video and audio simultaneously. Audio function sources such as TUNER, TAPE, CD, and DCC may be selected in conjunction with a Video source. This feature (Sound Injection) combines a sound from one source with a picture from another. Choose the video source first, and then choose another audio source to activate this function.

**㉙ DISPLAY OFF button**

When this button is pressed, the display is turned off and DISPLAY OFF indicator lights up. Press the button again to turn the display ON again. The other operations remain the same whether the display is ON or OFF.

**㉚ MUTING button**

When this button is pressed, the indicator lights and the sound mutes. Press the button again to cancel muting and resume the original sound level.

**㉛ VOLUME control**

Adjusts the overall sound level. Turning the control clockwise increases the sound level.

**㉜ AUX input jacks**

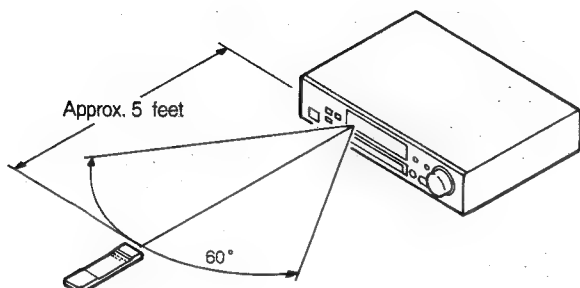
These auxiliary video/audio input jacks accept the connection of a camcorder, portable VCR, etc.

To make proper connections, refer the owner's manuals of the auxiliary components.

## REMOTE CONTROL UNIT RC500AVE

### 1. Remote control operating range

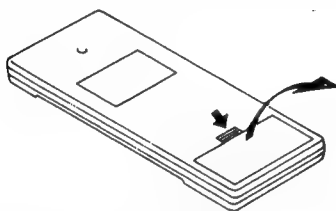
The remote control unit can be operated within a range of approx. 15 feet from the IR SENSOR of the AV500 preamplifier. Note that remote control operation may not be possible if the remote control unit's transmitter window is not pointed at the preamplifier's IR SENSOR window or if there is an obstruction between the remote control unit and the preamplifier.



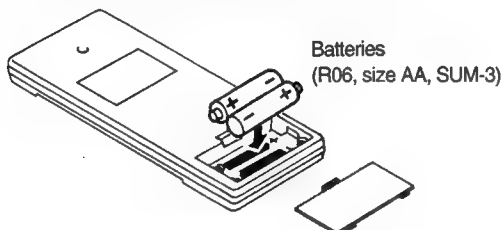
### 2. Loading batteries

The life of the batteries in the remote control unit is about 1 year under normal use. Remove the batteries if the remote control unit will not be used for a long period. Also, when you feel that the battery power has dropped, replace both batteries with new ones soon.

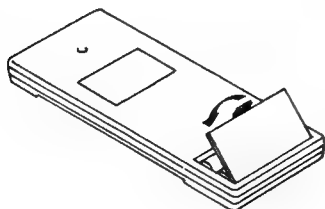
(1) Press the tab and remove the battery cover.



(2) Insert the batteries, making sure their plus (+) and minus (-) terminals are oriented correctly.



(3) Press the battery cover closed until it clicks.

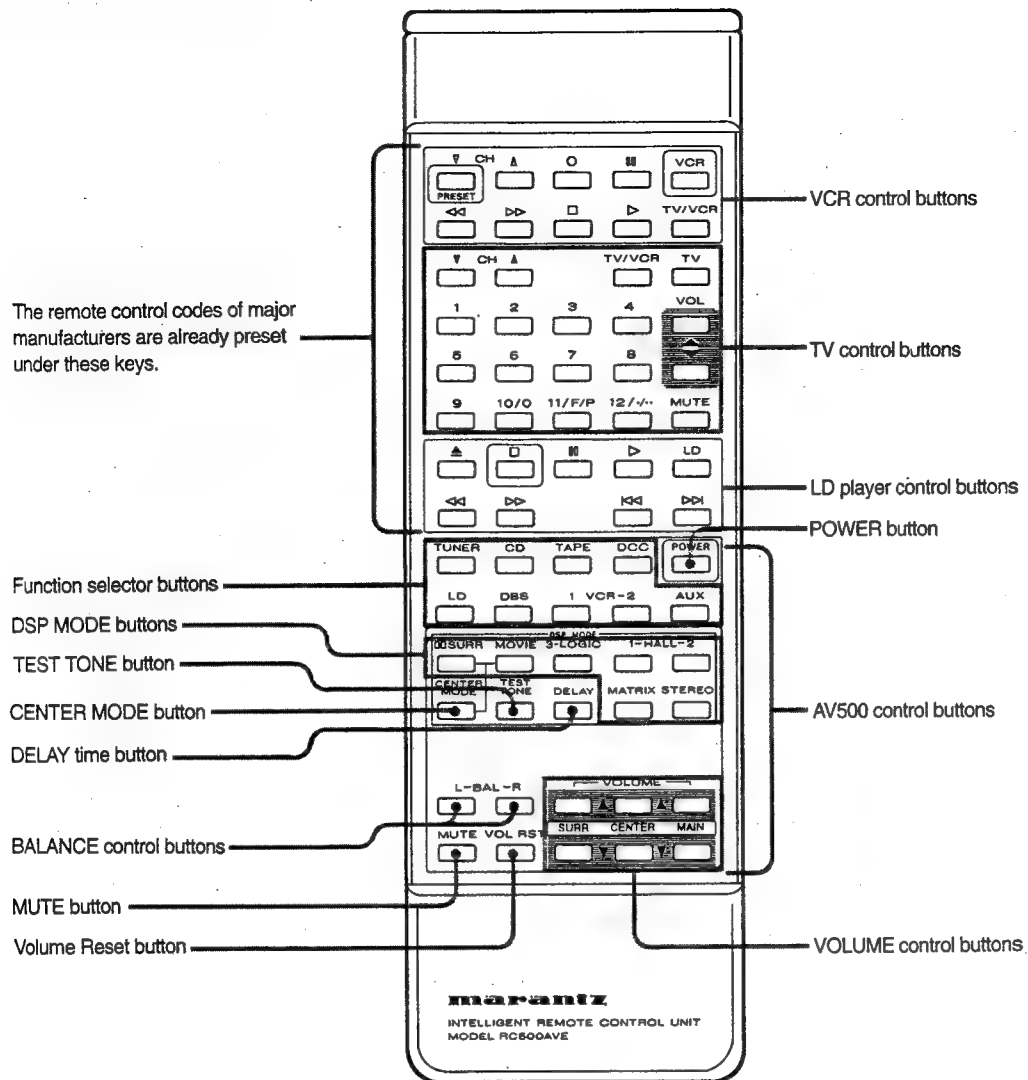


### 3. Battery handling

Battery leakage may occur if batteries are not handled correctly. Take sufficient care concerning the following points.

- Make sure batteries are loaded with their plus (+) and minus (-) terminals oriented as shown in the diagram inside the battery compartment.
- Never mix batteries of different types, since some batteries may have different voltages even though they have the same shape.
- Never use old and new batteries together. When replacing batteries, replace both batteries with new ones.
- Batteries should never be exposed to heat, disassembled, shorted, or disposed of in fire.
- Some batteries are rechargeable and some cannot be recharged. Read the instructions on the battery labels carefully.

### ● Functions and operations of remote control unit



**\* Using the RC500AVE for VCR and TV operations**

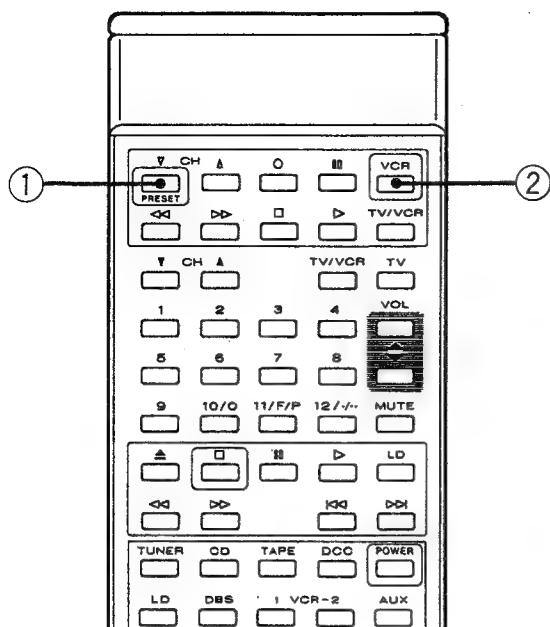
The RC500AVE remote control, is already pre-programmed with the remote control codes from 12 major TV, 13 VCR, and 2 LD players.

**Note:**

Remote control operation or operation of specific keys may not be possible with some TV, VCR, or LD players.

VCR:	Toshiba, Mitsubishi, Sharp, Hitachi, Sony, Matsushita/Panasonic, Funai, JVC, Sanyo, Shintom, NEC, General, and Marantz, Philips/Magnavox
TV:	Toshiba, Mitsubishi, Sharp, Hitachi, Sony, Matsushita/Panasonic, JVC, Sanyo, NEC, Pioneer, General, and Marantz, Philips/Magnavox
LD:	Pioneer, Marantz

## ● VCR presetting and operation

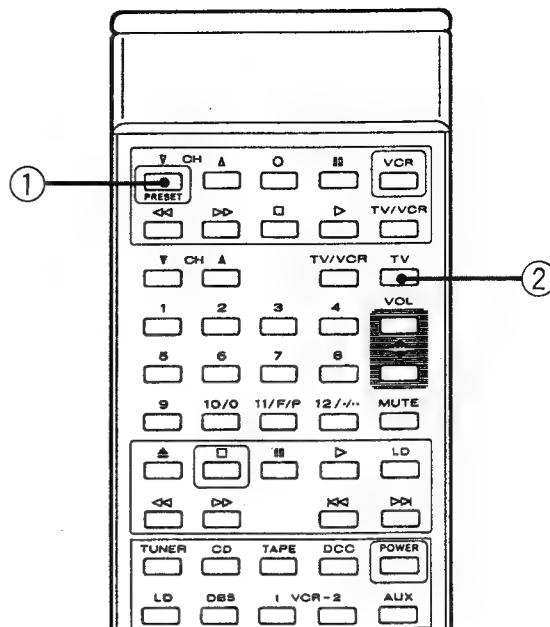


1. Aim the remote control at the VCR.
2. By pressing and holding the **PRESET** button ①, press **VCR** button ② until the power of the VCR turns ON or OFF.
3. Release the buttons. The remote control codes of your VCR are preset.  
Carry out the above procedure when you replace the batteries of the remote control.

### Button description

<b>CH ▼</b>	: Channel Down
<b>CH ▲</b>	: Channel Up
<b>●</b>	: Record
<b>⏸</b>	: Pause
<b>VCR</b>	: VCR power ON/OFF
<b>TV/VCR</b>	: TV/VCR selector switch
<b>▶</b>	: Play
<b>■</b>	: Stop
<b>▶▶</b>	: Fast Forward
<b>◀◀</b>	: Rewind

## ● TV presetting and operations



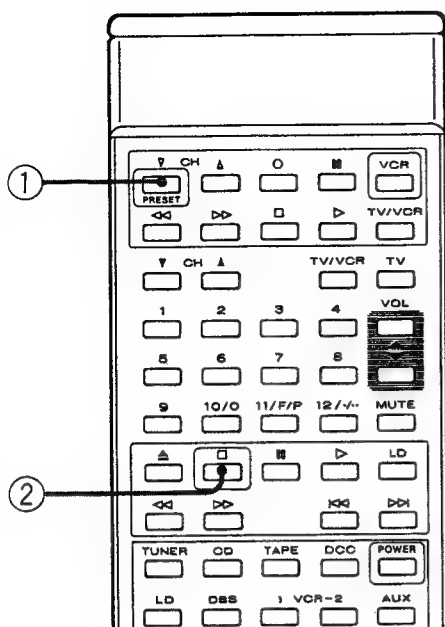
1. Aim the remote control at the TV.
2. By pressing and holding the **PRESET** button ①, press **TV** button ② until the power of the TV turns ON or OFF.
3. Release the buttons. The remote control codes of your TV are preset. You will need to repeat the above procedure whenever you replace the batteries of the remote control.

### Button description

<b>CH ▼</b>	: Channel Down
<b>CH ▲</b>	: Channel Up
<b>TV/VCR</b>	: TV/VCR selector switch
<b>TV</b>	: TV power ON/OFF
<b>VOL▲/▼</b>	: Volume Up/Down
<b>MUTE</b>	: Muting
<b>1 ~ 12</b>	: Channel selector



## ● LD player presetting and operation

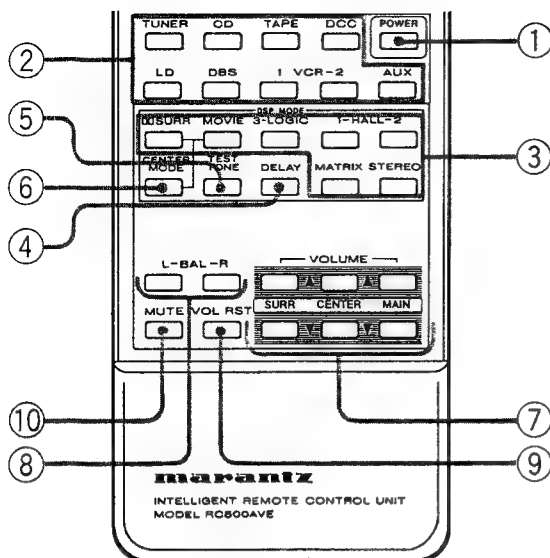


1. Turn the power of your LD player ON and put it in the PLAY mode.
2. Aim the remote control at the LD player.
3. By pressing and holding the **PRESET** button ①, press the **STOP** button ② until the LD player stops.
4. Release the buttons. The remote control codes of your LD player are preset. You will need to repeat the above procedure whenever you replace the batteries of the remote control.

### Button description

	: Tray open/close
	: Stop
	: Pause
	: Play
	: LD player power ON/OFF
	: Fast Forward
	: Rewind
	: Forward skip (to next chapter)
	: Backward skip (to previous chapter)

## ● AV500 operation



### ① POWER switch

Press to turn ON/OFF the power to the AV500 main unit. Power to the AC OUTLETS on the rear panel turns ON/OFF simultaneously.

The remote control operation is not possible unless the POWER/STANDBY switch on the AV500 is in the ON (or STANDBY) position. Press the AV500's POWER/STANDBY switch before operating the remote control unit.

### ② Function selector buttons

Press one of the buttons to select the desired source.

### ③ DSP MODE button

Press to select the surround modes. Use the STEREO mode in normal stereo playback.

### ④ DELAY time button

Press to adjust the delay time in some surround modes. When the DSP mode is DOLBY SURROUND, this button adjusts the delay time from 15 to 30 mS. In HALL 1, HALL 2, MOVIE and MATRIX modes, this button adjusts the it from 0 to 90 mS. This button is not effective when the DSP mode is STEREO or 3-CHANNEL LOGIC.

### ⑤ TEST TONE button

Press this button in the DOLBY SURROUND, MOVIE SURROUND or 3-CHANNEL LOGIC mode to generate the test signal for adjusting the balance between the channels. The test tone is output from different channels in the following sequence:

→FRONT LEFT→CENTRE→FRONT RIGHT→REAR→

This button is effective only when the DSP mode is DOLBY SURROUND, MOVIE SURROUND or 3-CHANNEL LOGIC.

\* The surround channel test tone is not output in 3-CHANNEL LOGIC mode.

### ⑥ CENTER MODE button

Press this button to select the center mode.

This button is effective when the DSP mode is DOLBY SURROUND, MOVIE SURROUND or 3-CHANNEL LOGIC. In DOLBY SURROUND or MOVIE SURROUND mode, pressing this button changes the center speaker mode in the following sequence:

→ PHANTOM → NORMAL → WIDE →

In 3-CHANNEL LOGIC mode, pressing this button changes the center speaker mode in the following sequence:

→ NORMAL → WIDE →

### ⑦ VOLUME control buttons

**MAIN:** Press to adjust the overall sound level.

▲ increases the volume and ▼ decreases it.

**CENTER:** Adjust the center speaker volume.

**SURR:** Adjust the surround speaker volume.

The CENTER keys are not effective when the center mode is PHANTOM.

### ⑧ BALANCE control buttons

Press to adjust the Left/Right volume balance of the front speakers. Press the L button to decreases the right speaker volume, and press the R button to decrease the left speaker volume.

### ⑨ VOL RST (Volume Reset) button

Press this button to reset the adjustments of the **CENTER** and **SURR VOLUME** buttons ⑦ and the **BALANCE** button ⑧ to the initial setting. However, this doesn't affect the **MAIN VOLUME**. To prevent incorrect operation, this button is designed to press and hold for more than 2 seconds to activate the reset mode.

### ⑩ MUTE button

When this button is pressed, the sound is sturned off and the **MUTING** indicator on the AV500 is turned on. Press the button again to cancel muting and resume the original sound.


In order to achieve the correct delay time for optimum Dolby Surround sound reproduction, please use the following procedure:

1. Measure the distance from your listening/viewing position to the center speaker, and note the result.
2. Measure the distance from your listening position to the surround speakers, noting the result.
3. Subtract the surround distance from the front distance, and add 15. The resulting number is your guide to the proper delay time setting.

**Example:** Distance from the front speakers = 10 feet. Distance from the surround speakers = 5 feet. Then, the correct delay time setting is 20 milli-seconds ( $10 - 5 = 5$ , add 15, total equals 20)

## DSP MODES

The AV500 incorporates a digital signal processor (DSP) which can reproduce various surround effects you experience in concert halls and movie theaters, etc. Six DSP modes are provided to reproduce a variety of surround sound effects, according to the content of the source to be played.

DSP Mode Name	Features	Delay Time Control Range
<b>1. DOLBY SURROUND</b>	This mode can be used for software encoded with  <b>DOLBY SURROUND</b> . The AV500 employs a Dolby Pro Logic Surround decoder which functions the same as the professional decoder used in motion picture theaters. The Dolby Pro Logic Surround decoder features a direction emphasis circuit, which reproduces the acoustic image to provide a surround effect just like you experience in actual movie theaters.	15 - 30 mS Initial setting: 20 mS
<b>2. MOVIE SURROUND</b>	This mode allows you to extend the delay time in the rear channel up to 90 mS. This enhances the feeling of a larger sound field in the surround channel.	0 - 90 mS Initial setting: 20 mS
<b>3. HALL1 SURROUND</b>	The sound in actual concert halls is a complex combination of direct and reflected sounds. This mode provide a sound-field effect of medium-sized circular hall with rich reverberations.	0 - 90 mS Initial setting: 30 mS
<b>4. HALL2 SURROUND</b>	This mode is suitable for reproduction of live concerts of pop or rock music. It reproduces the image of a live stage and expansion of audience seats.	0 - 90 mS Initial setting: 30 mS
<b>5. MATRIX SOUND</b>	This mode is effective for playing sports broadcasts or outdoor live concerts. It provides a surround mode with a wide surround effect.	0 - 90 mS Initial setting: 30 mS
<b>6. 3-CHANNEL LOGIC</b> (Front and center channel outputs only)	If the left and right speakers are located far apart to each other, the image of the center channel is degraded. This mode uses the center channel direction enhancement circuitry of the Pro-Logic decoder to provide a center channel when using regular two channel audio programme material.	No delay is applicable.
<b>7. STEREO</b>	The DSP mode is off in this position, and the sound is reproduced in normal stereo.	

### Delay time

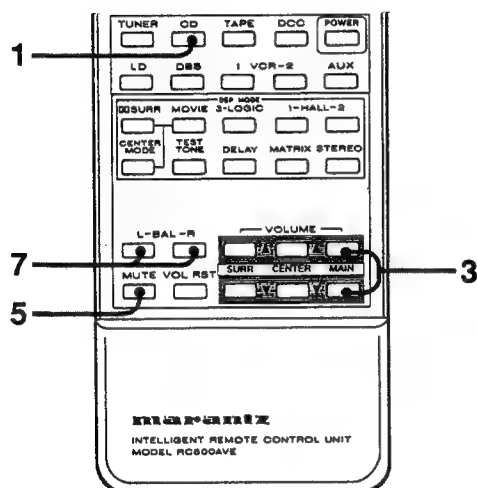
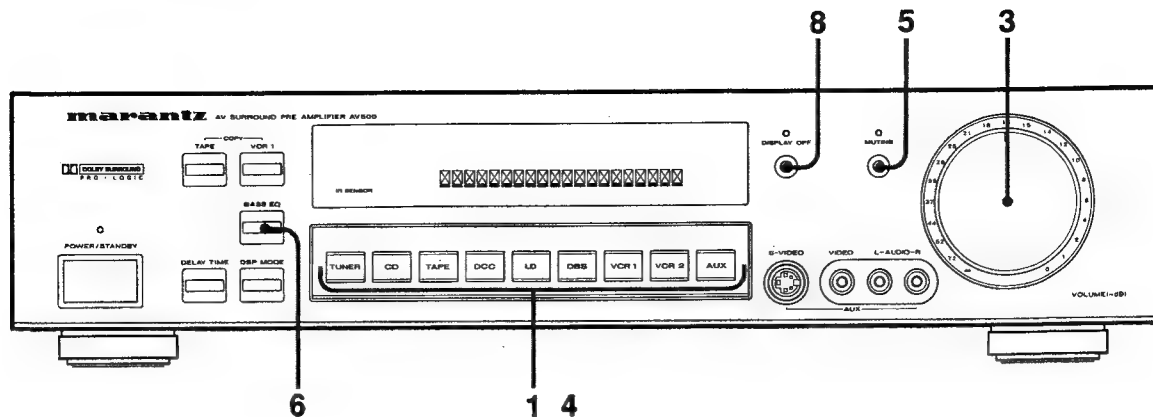
A certain delay time is preset with each mode. This initial setting can be adjusted according to the source or the listening room condition.

A longer delay time creates a larger surround effect, and a shorter delay time creates a smaller surround effect.

\* The delay time can be adjusted for each mode (Except 3-CHANNEL LOGIC and STEREO mode).

# PLAYBACK OPERATIONS

## 1. Normal PLAYBACK



### To play CD:

1. Press the CD function selector button.
2. Start playing a CD.
3. Adjust the overall sound to an optimum level by VOLUME control (or MAIN up/down on remote).

### To combine desired audio with desired video:

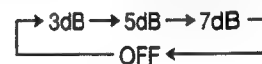
4. Select the desired video source from LD, DBS, VCR1, VCR2 and AUX, and press its function selector button. Then, select the desired audio source from TUNER, CD, TAPE and DCC, and press its function selector button.  
**Note:** It is not possible to combine the video and audio of two video sources (LD, DBS, VCR1, VCR2, AUX).

### To mute the sound temporarily:

5. Press the MUTE (or MUTE) button. Pressing the button again resumes the original volume.

### To enhance the bass:

6. Press the BASS-EQ button. The BASS-EQ emphasizes low frequencies around 80 Hz. By pressing the button the BASS-EQ level changes in the following sequence:



### To adjust the left/right volume balance:

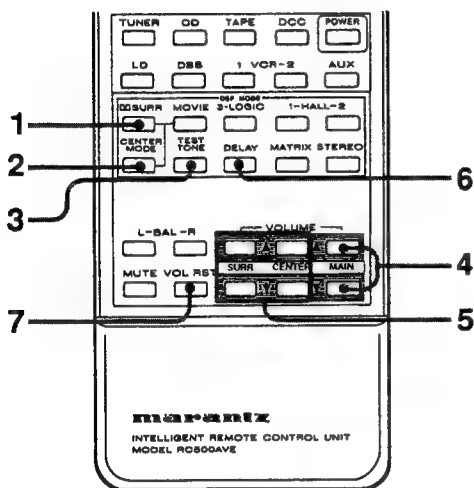
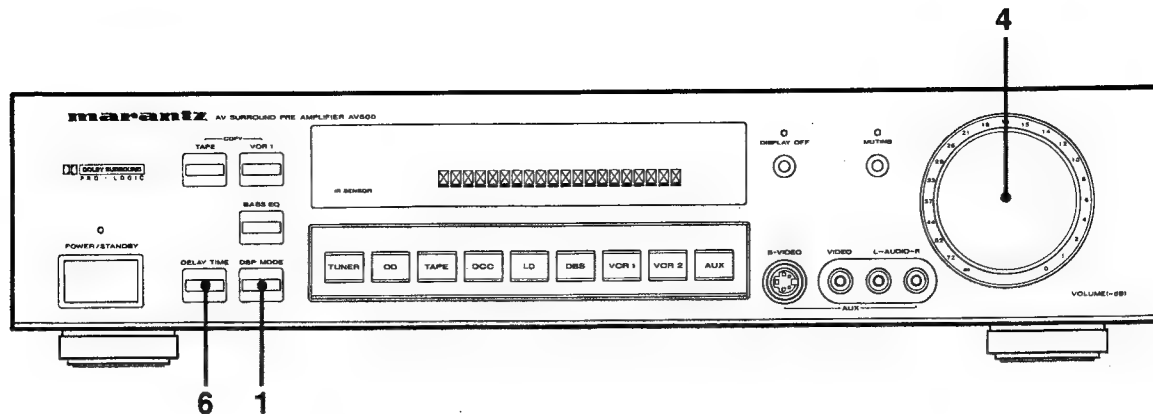
7. Press the BALANCE L or R button on the remote control unit. Pressing "L" decreases the right speaker volume, and pressing "R" decreases the left speaker volume.

### To turn off the display on the main unit temporarily:

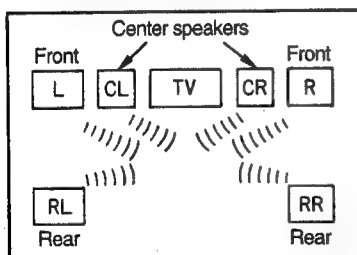
8. Press the DISPLAY OFF button. Press again to turn the display on.

## 2. DOLBY SURROUND and MOVIE SURROUND (1)

When center speakers are used (WIDE or NORMAL mode)



Speaker positions at the NORMAL and WIDE modes



1. Press the DSP MODE (or SURR on the remote) button to select the DOLBY SURROUND mode.

2. Press the CENTER MODE button to select WIDE or NORMAL.  
Select the WIDE mode if the center speakers are equivalent to the front left and right speakers, or the NORMAL mode if the center speakers are smaller than left and right.

3. Press the TEST TONE button on the remote to generate test tone.  
The test tone is generated in the following sequence:

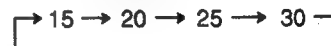


4. Adjust the overall sound to your preferred listening level by using the main VOLUME control on the front panel (or MAIN up/down on the remote).

5. Press the CENTER VOLUME and SURR VOLUME buttons on the remote to adjust the balance with the front speakers.  
When the speaker balance is adjusted, press the TEST TONE button on the remote **3** again to stop the test tone.  
Now all adjustments are completed.

### \* Play a source.

6. Adjust the delay time.  
In the DOLBY SURROUND mode, the delay time is variable in the following sequence:



In the MOVIE SURROUND mode, the delay time can be adjusted from 0 mS to 90 mS in 10 mS steps.

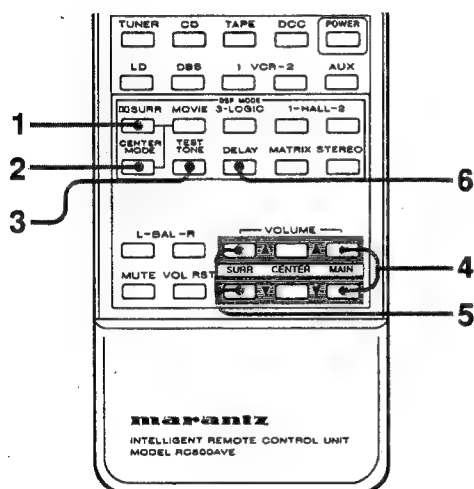
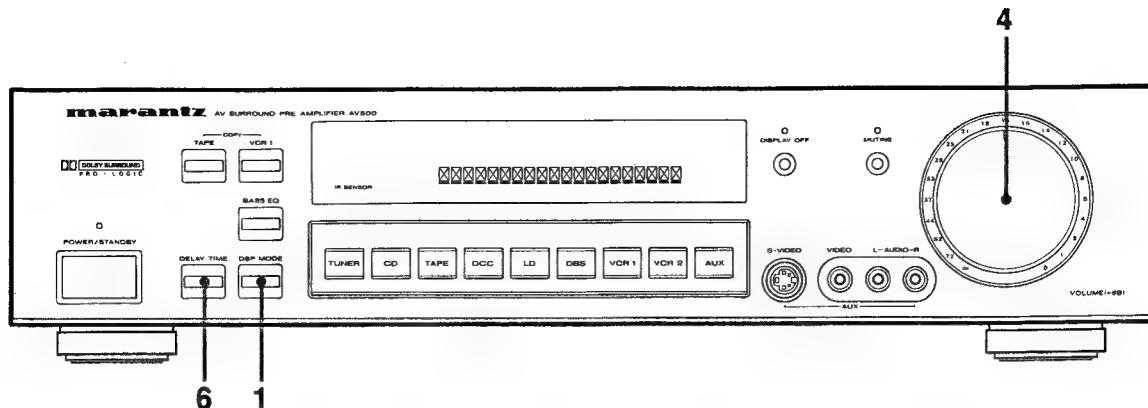
7. The center and surround volume adjusted in step 5 and the left/right balance setting can be returned to the initial settings by holding the VOL RST button on the remote for more than 2 seconds.

**With the AV500, the input balance is adjusted automatically.**

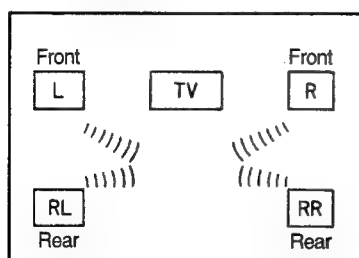
- The input balance is adjusted automatically, so it is not necessary to adjust it every time the source is changed. It is designed to minimize crosstalk, so the maximum effects of the Dolby Pro-Logic and Dolby 3-channel Logic can be obtained.

### 3. DOLBY SURROUND and MOVIE SURROUND (2)

When center speakers are not used (PHANTOM mode)



Speaker position at PHANTOM mode



1. Press the **DSP MODE** (or **⏏ SURR** on the remote) button to select the **DOLBY SURROUND** mode.

2. Press the **CENTER MODE** button to select **PHANTOM**. Each time the button is pressed, the center modes switch in the following sequence:

→ **NORMAL** → **WIDE** → **PHANTOM**

3. Press the **TEST TONE** button on the remote to generate test tone.

The test tone is generated in the following sequence:

→ **Avant gauche** → **Avant Gauche & Droit** → **Avant droit**  
← **Arrière Gauche & Droit** ←

4. Adjust the overall sound to an optimum level using the **VOLUME** control (or **MAIN** up/down on the remote).

5. Press the **SURRE VOLUME** control buttons on the remote to adjust the balance with the front speakers. When the speaker balance is adjusted, press the **TEST TONE** button **3** on the remote again to turn off the test tone.

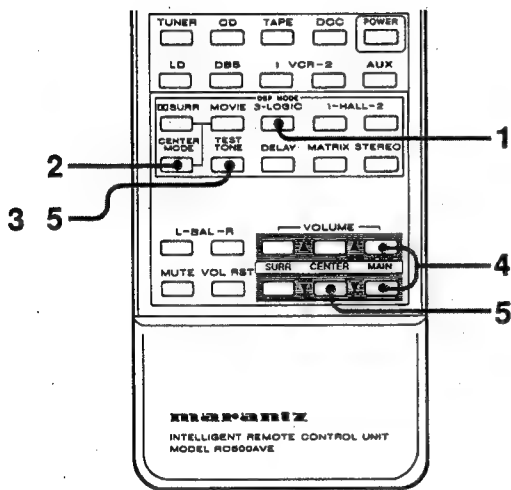
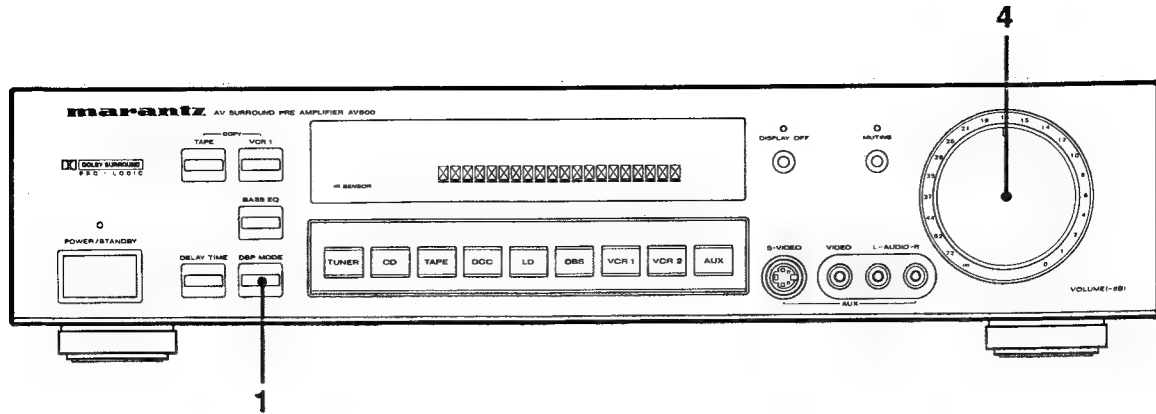
Now all adjustments are completed. As the center channel of the **PHANTOM** mode is equally divided to the front left and right channels, the adjustment for the center channel is not required.

\* **Play a source.**

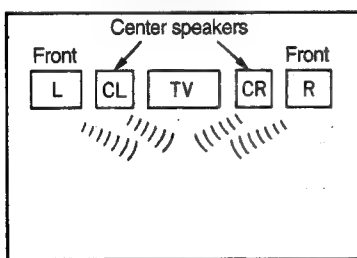
6. Adjust the delay time. In the **DOLBY SURROUND** mode, the delay time is adjusted in the following sequence:

→ **15** → **20** → **25** → **30**

#### 4. DOLBY 3-CHANNEL LOGIC



Speaker position of 3-CHANNEL LOGIC mode



1. Press the **DSP MODE** (or 3-LOGIC on remote) button to select the 3-CHANNEL LOGIC mode.
2. Press the **CENTER MODE** button to select **WIDE** or **NORMAL**.  
Select the **WIDE** mode if the center speakers are equivalent to the front left and right speakers, or the **NORMAL** mode if the center speakers are smaller than left and right.
3. Press the **TEST TONE** button on the remote to generate test tone.  
The test tone is generated in the following sequence:  

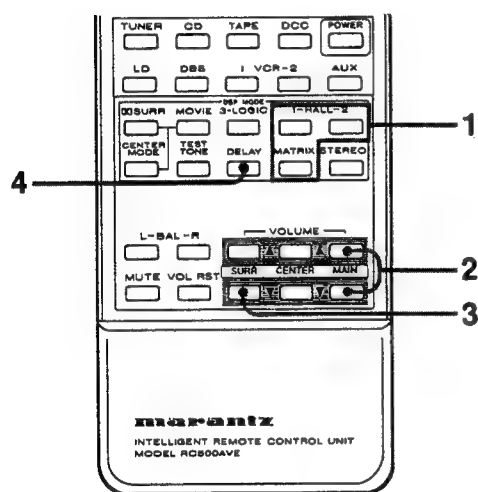
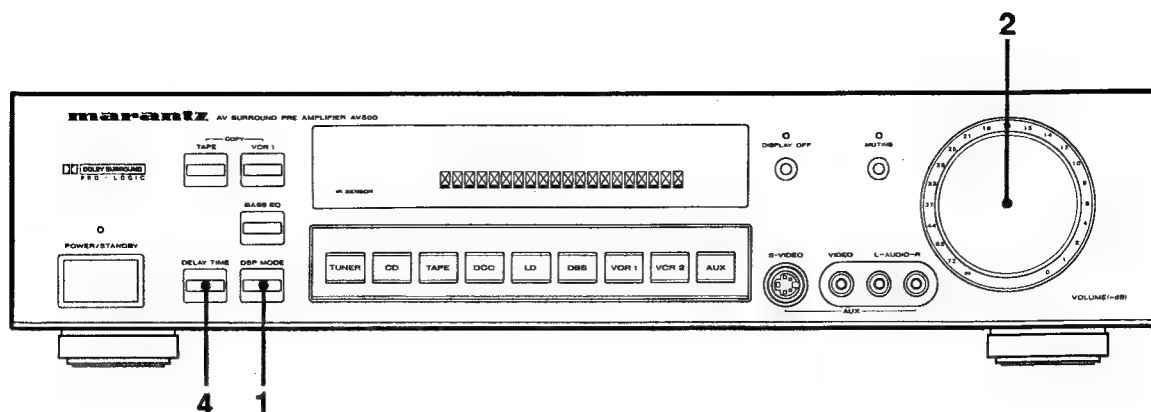
→Front Left→Center→Front Right→
4. Adjust the overall sound level to your preference by using the **VOLUME** control (or **MAIN** up/down on the remote).
5. Press the **CENTER VOLUME** control buttons on the remote to adjust the balance with the front speakers.  
When the speaker balance is adjusted, press the **TEST TONE** button **3** on the remote again to turn off the test tone.  
Now all adjustments are completed.

**\* Play a source.**

**Note:**

When the 3-CHANNEL LOGIC mode is selected, sound is output from the left, center and right channels, with no sound output from the surround channels.

## 5. Other DSP modes



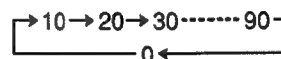
1. Select the HALL 1, HALL 2, or MATRIX mode by pressing the DSP MODE button (or HALL 1, HALL 2, or MATRIX on remote).
  2. Adjust the volume to your preference using the VOLUME control (or MAIN up/down on the remote).
  3. Press the SURR VOLUME buttons on the remote to adjust the balance with the front speakers.
- \* Play a source.**
4. Press the DELAY TIME button (or DELAY on the remote) to adjust the delay time.

In order to achieve the correct delay time for optimum Dolby Surround sound reproduction, please use the following procedure:

1. Measure the distance from your listening/viewing position to the center speaker, and note the result.
2. Measure the distance from your listening position to the surround speakers, noting the result.
3. Subtract the surround distance from the front distance, and add 15. The resulting number is your guide to the proper delay time setting.

**Example:** Distance from the front speakers = 10 feet. Distance from the surround speakers = 5 feet. Then, the correct delay time setting is 20 milli-seconds (10 - 5 = 5, add 15, total equals 20)

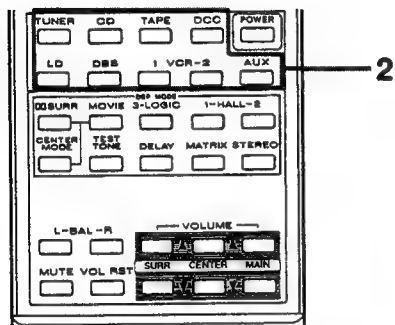
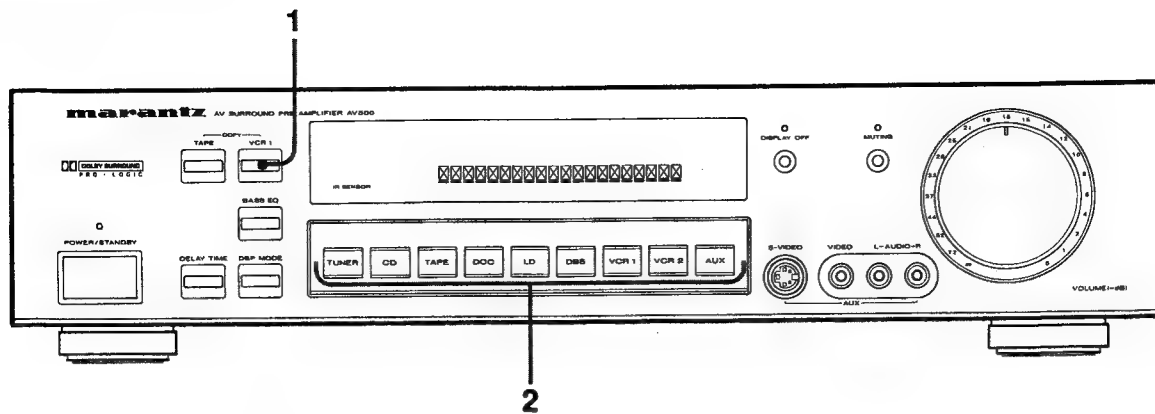
By pressing the button the delay time changes in the following sequence:





# AUDIO/VIDEO RECORDING and DUBBING

## 1. Recording from video source (1)



### ■ Recording onto VCR 1 and/or VCR 2

1. Press the VCR 1 COPY button to select "SOURCE".
  2. Select the recording source.
  3. Start recording on VCR 1 or VCR 2.
- The selected source can be monitored on the TV screen during the recording.
  - Simultaneous recording on both VCR 1 and VCR 2 is possible.

#### Note:

The characters and pictures displayed by the picture-in-picture and on-screen display functions are not recorded onto the VCRs.

### ■ Dubbing from VCR1 to VCR2

1. Press the VCR 1 COPY button to select "SOURCE".
  2. Press the VCR 1 function selector button.
  3. Start recording on VCR 2.
  4. Start playing VCR 1.
- The audio and video of VCR 1 can be monitored during dubbing.

### ■ Dubbing from VCR 2 to VCR 1

#### ● Dubbing while playing audio and video

1. Press the VCR 1 COPY button to select "SOURCE".
2. Press the VCR 2 function selector button.
3. Start recording on VCR 1.
4. Start playing VCR 2.

#### ● Dubbing while playing another source

1. Press the VCR 1 COPY button to select "VCR 2".
2. Press the function selector button of the source to be watched during dubbing.
3. Start recording on VCR 1.
4. Start playing VCR 2.

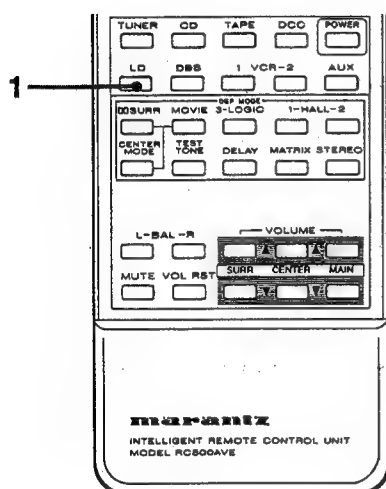
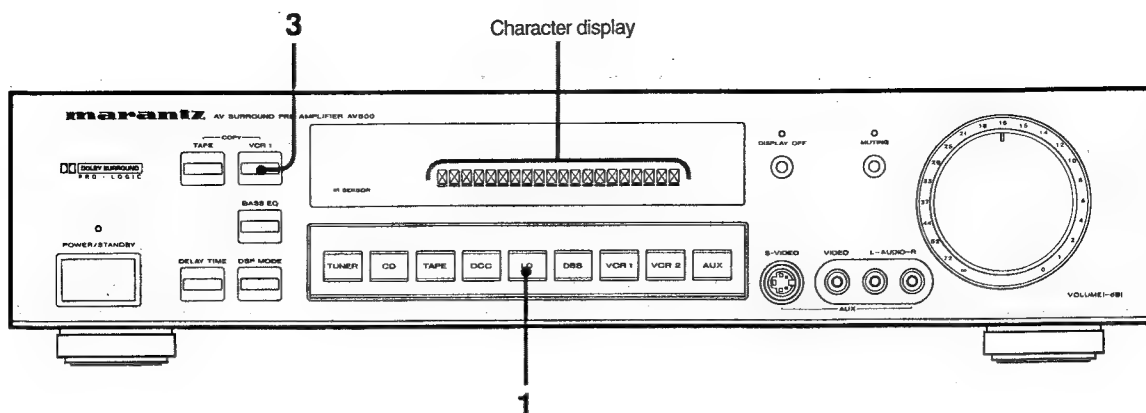
#### Notes:

- When the VCR 1 is selected by the function selector, "VCR 2" cannot be selected by pressing the VCR 1 COPY button.
- If the VCR 1 function selector button is pressed while "VCR 2" is selected with the VCR 1 COPY button, message "CHECK COPY SW" appears on the display. In this case, press the COPY button to select another source or press a function button other than VCR 1.

## 2. Recording a video source (2)

### – Using picture-in-picture

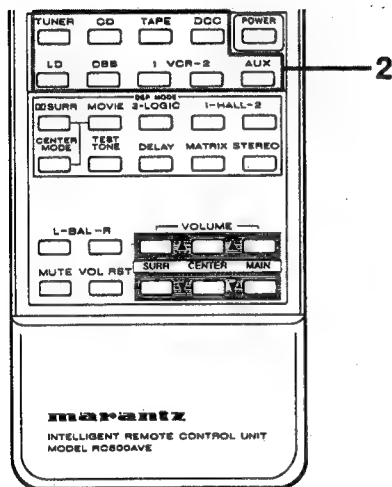
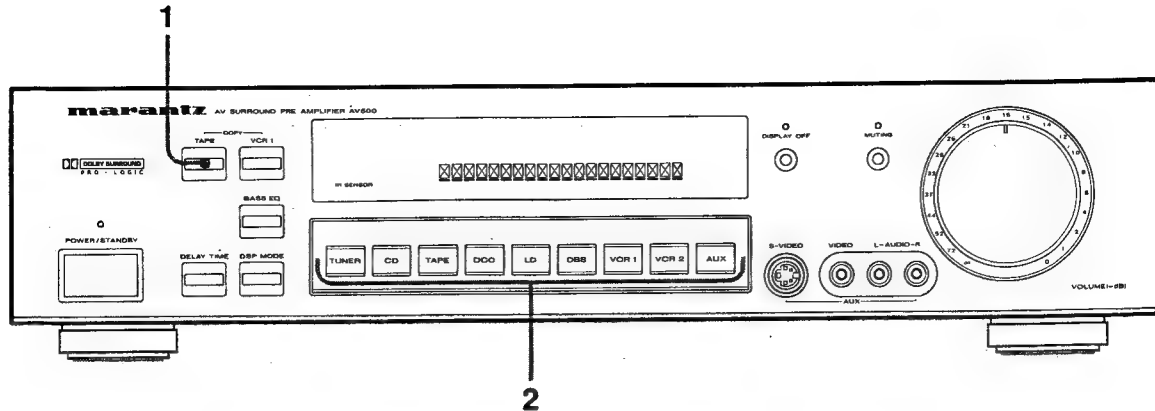
The VCR1 COPY button of the AV500 can be used to record audio/video on VCR1 independently from the source being played.



**For example, to record the Satellite tuner onto VCR 1 while playing the LD player:**

1. Press the LD function selector button.
2. Play the LD player.
3. Press the VCR 1 COPY button to select "DBS".
  - If "SOURCE" is selected, the source selected with the function selector will be recorded.
4. Start recording on VCR 1.

### 3. Recording an audio source (1)



#### ■ To record on tape deck and/or DCC recorder

1. Press the TAPE COPY button to select "SOURCE".
2. Press the function selector button of the recording source.
3. Start recording on the tape deck or DCC recorder.
- Simultaneous recording on both of the tape deck and DCC recorder is possible.

#### ■ To dub from a tape deck to DCC recorder

1. Press the TAPE COPY button to select "SOURCE".
2. Press the TAPE function selector.
3. Start recording on the DCC recorder.
4. Start playing the tape deck.

#### ■ To dub from a DCC recorder to a tape deck

##### ● Dubbing while listening the DCC recorder

1. Press the TAPE COPY button to select "SOURCE".
2. Press the DCC function selector.
3. Start recording on the tape deck.
4. Start playback on the DCC recorder.

##### ● Dubbing while playing another source

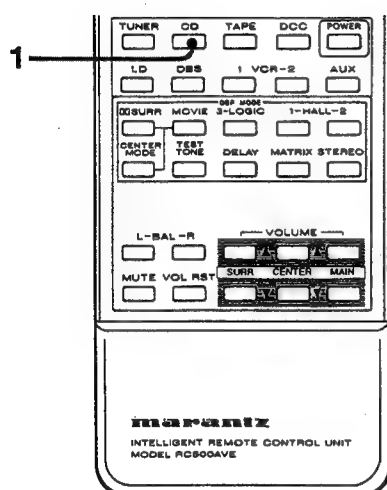
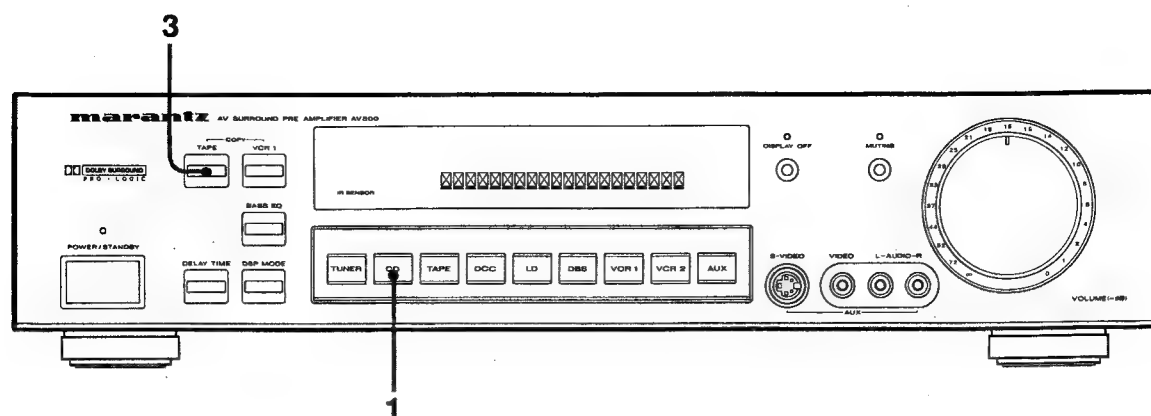
1. Press the TAPE COPY button to select "DCC".
2. Press the function selector of the source to be played during dubbing.
3. Start recording on the tape deck.
4. Start playing the DCC tape deck.

#### Note:

While the DCC function is selected by TAPE COPY, "TAPE" cannot be selected by the TAPE function selector.

#### 4. Recording of audio source (2)

The TAPE COPY button of the AV500 can be used to record an audio source on the tape deck independently from the source being played.



**For example, to record the audio of AM/FM tuner onto the tape deck while playing the CD player:**

1. Press the CD function selector.
2. Start playing the CD player.
3. Press the TAPE COPY button to select "TUNER".
  - If "SOURCE" is selected, the source selected with the function selector will be recorded.
4. Start recording on the tape deck.

#### Notes:

- When the TAPE function is selected, "DCC" cannot be selected by the TAPE COPY button.
- If the TAPE function selector is pressed while "DCC" is selected with the TAPE COPY button, message "CHECK COPY SW" appears on the display. In this case, press the COPY button to select another source than DCC, or press a function button other than TAPE.
- Operating the BASS-EQ button and DSP buttons during recording does not affect the recorded contents.
- If the power is turned OFF by the remote control unit while the POWER/STANDBY switch on the main unit is left in the ON (STANDBY) position, the memory is permanently backed up and will not be cleared. This switch positioning is recommended in normal use.

## MEMORY BACKUP

Even when the power of the unit is turned ON or OFF, the settings of the function selector, DSP mode, delay time, etc., are not cleared and are held in memory.

To back up the memory, the AV500 incorporates a special power storage capacitor, so that the memory contents can be backed up for about a week even when the POWER switch is left in the OFF position.

However, if the POWER switch is OFF for more than a week, the backup capacitor may be discharged and the memory may be erased.

In such a case, set the settings again by referring to "Playback Operations" starting from page 18.

- If the power is turned OFF by the remote while the POWER/STANDBY switch on the main unit is ON, the memory is permanently backed up and will not be erased. We recommend this setting for normal use.

## TROUBLESHOOTING

**In case of trouble, check the following before calling for service:**

1. Are the connections made properly?
2. Are you operating the unit properly following the user's guide?
3. Are the power amplifiers and speaker working properly?

If the unit does not operate properly, check items shown in the following table.

If your trouble cannot be recovered with the remedy actions listed in the following table, malfunction of the internal circuitry is suspected; immediately unplug the power cable and contact your dealer, nearest Marantz distributor or the Marantz Service Center in your country.

	Symptom	Cause	Solution
Trouble occurring regardless of sources, i.e. during CD playback, tape playback and FM reception, etc.	With the power switch is turned on, the display does not light up and no sound is produced.	<ul style="list-style-type: none"> <li>• The power cable is not plugged in completely.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the power cable connections.</li> </ul>
	The display lights but no sound or picture is produced.	<ul style="list-style-type: none"> <li>• The input/output cord connections are incomplete.</li> <li>• The MUTING switch is ON.</li> <li>• The position of the function selector is not correct.</li> <li>• The VOLUME control is turned down all the way.</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure all connections are made securely.</li> <li>• Press the MUTING button to turn it off.</li> <li>• Press the function selector of the desired source.</li> <li>• Turn the control to an appropriate level.</li> </ul>
	Sound is output only from the left or right channel.	<ul style="list-style-type: none"> <li>• The input/output cord connections are incomplete.</li> <li>• The left/right balance is off-center.</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure all connections are made securely.</li> <li>• Adjust the BALANCE control correctly.</li> </ul>
	During stereo playback, the left/right outputs are reversed.	<ul style="list-style-type: none"> <li>• The left and right speaker cable connections or the left and right input/output cable connections are reversed.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the left and right cable connections.</li> </ul>
Trouble occurring during surround playback	No sound is produced from the surround speakers.	<ul style="list-style-type: none"> <li>• The DSP mode is STEREO.</li> <li>• The input signal is monaural.</li> <li>• The DSP mode is 3-CHANNEL LOGIC.</li> </ul>	<ul style="list-style-type: none"> <li>• Select a DSP mode other than STEREO and 3-CHANNEL LOGIC.</li> <li>• The center channel signal is not output from monaural signals.</li> <li>• The surround channel signals are not output in 3-CHANNEL LOGIC mode.</li> </ul>
	No sound is produced from the center speaker.	<ul style="list-style-type: none"> <li>• The DSP mode is other than DOLBY SURROUND, MOVIE SURROUND and 3-CHANNEL LOGIC.</li> <li>• The center mode is PHANTOM.</li> </ul>	<ul style="list-style-type: none"> <li>• Select one of the DOLBY, MOVIE, or 3-CHANNEL LOGIC DSP modes.</li> <li>• Select NORMAL or WIDE mode.</li> </ul>
	The delay time cannot be adjusted.	<ul style="list-style-type: none"> <li>• The DSP mode is STEREO or 3-CHANNEL LOGIC.</li> <li>• The DSP mode is DOLBY SURROUND.</li> </ul>	<ul style="list-style-type: none"> <li>• The delay time cannot be adjusted in STEREO and 3-CHANNEL LOGIC modes.</li> <li>• In DOLBY SURROUND mode, the delay time can be adjusted only in the range from 15 to 30 mS.</li> </ul>
Trouble occurring during VCR copy or tape copy	"VCR2" cannot be selected with the VCR1 COPY button.	<ul style="list-style-type: none"> <li>• While VCR1 is selected with the function selector, "VCR2" cannot be selected with the VCR1 COPY button.</li> </ul>	<ul style="list-style-type: none"> <li>• Press a COPY button to select another source than "VCR2".</li> <li>• Press a function selector button other than the VCR1 button.</li> </ul>
	Message "CHECK COPY SW" appears on the display.	<ul style="list-style-type: none"> <li>• The VCR1 function selector button is pressed while "VCR2" has been selected with the VCR1 COPY button.</li> </ul>	<ul style="list-style-type: none"> <li>• Press a COPY button to select another source than "VCR2".</li> <li>• Press a function selector button other than the VCR1 button.</li> </ul>
	"DCC" cannot be selected with the TAPE COPY button.	<ul style="list-style-type: none"> <li>• While TAPE is selected with the function selector, "DCC" cannot be selected with the TAPE COPY button.</li> </ul>	<ul style="list-style-type: none"> <li>• Press a COPY button to select another source than "DCC".</li> <li>• Press a function selector button other than the TAPE button.</li> </ul>
	Message "CHECK COPY SW" appears on the display.	<ul style="list-style-type: none"> <li>• The TAPE function selector button is pressed while "DCC" has been selected with the TAPE COPY button.</li> </ul>	<ul style="list-style-type: none"> <li>• Press a COPY button to select another source than "DCC".</li> <li>• Press a function selector button other than the TAPE button.</li> </ul>
	Sound cannot be recorded with surround effect.	<ul style="list-style-type: none"> <li>• The ssurround effect cannot be recorded. Instead, record in the normal fashion, and when playing back, select your preferred surround sound mode.</li> </ul>	
Trouble related to remote control unit	Remote control operation is not normal.	<ul style="list-style-type: none"> <li>• The batteries are exhausted.</li> <li>• The remote control unit is operated too far away from the main unit.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace both batteries with new ones.</li> <li>• Operate the remote control unit at a closer distance to the main unit.</li> </ul>

### How to reset the unit

Should the operation or display seems to be abnormal, reset the unit with one of the following procedures.

1. Press the POWER/STANDBY switch to OFF then ON again.
2. On the main unit, press and hold the LD and TAPE function selector buttons simultaneously while you press the

selector buttons simultaneously while you press the POWER/STANDBY switch to on.

Remember that the procedure 2 will reset the settings of the function selector, DSP mode, delay time, etc., to their initial settings.

## CARE AND MAINTENANCE

This section describes the care and maintenance tasks that must be performed to optimize the operation of your Marantz equipment.

### CLEANING OF EQUIPMENT EXTERNAL SURFACES

The exterior finish of your AV500 will last indefinitely with proper care and cleaning. Never use scouring pads, steel wool, scouring powders or harsh chemical agents (e.g., lye solution), alcohol, thinners, benzine, insecticide or other volatile substances as these will mar the finish of the equipment. Likewise, never use cloths containing chemical substances. If the equipment gets dirty, wipe the external surfaces with a soft, lint-free cloth.

If the equipment becomes heavily soiled:

- dilute some washing up liquid in water, in a ratio of one part detergent to six parts water
- dip a soft, lint free in the solution and wring the cloth out until it is damp.
- wipe the equipment with the damp cloth.
- dry the equipment by wiping it with a dry cloth.

### FUSE REPLACEMENT

If a fuse blows, unplug the equipment from the mains supply. Replace the fuse only with a fuse of the same type and rating. Replacing the fuse with one of a higher rating or a slower action will not protect the equipment and will invalidate the warranty. If the replacement fuse blows again after the equipment is turned on, the equipment should be taken to an authorized service facility.

### REPAIRS

Only the most competent and qualified service technicians should be allowed to service the equipment. The Marantz company and its factory-trained warranty station personnel have the knowledge and special facilities needed for repair and calibration of this precision equipment. After the warranty period has expired, repairs will be performed for a charge if the equipment can be returned to normal operation.

In the event of difficulty, refer to your dealer or write directly to the nearest location to you that is listed on the Marantz Authorised Service Station list. If writing, please include the model and serial number of the equipment together with a full description of what you think is abnormal about the equipment's behaviour.

## MODEL AV500 TECHNICAL SPECIFICATIONS (DIN)

### Audio

Input Sensitivity/ Impedance .....	150 mV/ 28 Kohms
Output Level/ Impedance .....	1.0 V/ 600 ohms
Total Harmonic Distortion .....	0.006%
Crosstalk .....	76 dB/ 10 kHz
Audio Frequency Response .....	10 Hz to 100 kHz (-3 dB)
Noise VOL MIN (Weighted) .....	3.5 $\mu$ V
VOL MAX (Weighted) .....	15 $\mu$ V
S/ N .....	90 dB
Dolby Surround Channel Separation .....	50 dB

### Video

Input level/ Impedance .....	1 Vp-p/ 75 ohms
Output Level/ Impedance .....	1 Vp-p/ 75 ohms
Vlideo Frequency Response .....	5 Hz to 7 MHz (-3 dB)
S/ N .....	63 dB

### DSP

Delay time .....	10 to 90 mS
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### General

Power Requirement .....	230/ 240 V AC, 50/ 60 Hz
Power Consumption .....	25 W

#### Dimensions

##### Gold version (including side panels)

Width .....	454 mm
Height .....	86 mm
Depth .....	336 mm
Weight .....	8.1 kg

##### Black version

Width .....	420 mm
Height .....	86 mm
Depth .....	336 mm
Weight .....	5.4 kg

### Accessories

Remote Control Unit RC500AVE .....	1
AA-size batteries .....	2
Stereo Pin cable .....	3

Design and specifications subject to change without notice.

Figure 1 Rear panel

- ① CD IN jacks
- ② TUNER IN jacks
- ③ TAPE IN/OUT jacks
- ④ DCC IN/OUT jacks
- ⑤ LD IN (AUDIO) jacks
- ⑥ DBS IN (AUDIO) jacks
- ⑦ VCR1 IN/OUT (AUDIO) jacks
- ⑧ VCR2 IN/OUT (AUDIO) jacks
- ⑨ FRONT OUTPUT jacks
- ⑩ CENTER OUTPUT jacks
- ⑪ SURROUND OUTPUT jacks
- ⑫ LD IN (VIDEO/S-VIDEO) jacks
- ⑬ DBS IN (VIDEO/S-VIDEO) jacks
- ⑭ VCR1 IN/OUT (VIDEO/S-VIDEO) jacks
- ⑮ VCR2 IN/OUT (VIDEO/S-VIDEO) jacks
- ⑯ TV MONI. (VIDEO/S-VIDEO) output jacks
- ⑰ REMOTE CONT. IN/OUT terminals
- ⑱ Power cable

Figure 2 Front panel controls

- ⑲ POWER/STANDBY switch
- ⑳ STANDBY indicator
- ㉑ DELAY TIME button
- ㉒ TAPE COPY button
- ㉓ VCR1 COPY button
- ㉔ BASS EQ button
- ㉕ DSP MODE button
- ㉖ Infrared sensor (IR SENSOR)
- ㉗ Character display
- ㉘ Function selector switches
- ㉙ DISPLAY OFF button
- ㉚ MUTING button
- ㉛ VOLUME control
- ㉜ AUX input jacks

Figure 1 Panneau arrière

- ① Prises CD IN
- ② Prises TUNER IN
- ③ Prises TAPE IN/OUT
- ④ Prises DCC IN/OUT
- ⑤ Prises LD IN (AUDIO)
- ⑥ Prises DBS IN (AUDIO)
- ⑦ Prises VCR1 IN/OUT (AUDIO)
- ⑧ Prises VCR2 IN/OUT (AUDIO)
- ⑨ Prises FRONT OUTPUT
- ⑩ Prises CENTER OUTPUT
- ⑪ Prises SURROUND OUTPUT
- ⑫ Prises LD IN (VIDEO/S-VIDEO)
- ⑬ Prises DBS IN (VIDEO/S-VIDEO)
- ⑭ Prises VCR1 IN/OUT (VIDEO/S-VIDEO)
- ⑮ Prises VCR2 IN/OUT (VIDEO/S-VIDEO)
- ⑯ Prises de sortie TV MONI. (VIDEO/S-VIDEO)
- ⑰ Bornes REMOTE CONT.IN/OUT
- ⑱ Cordon d'alimentation

Figure 2 Commandes du panneau avant

- ⑲ Touche POWER/STANDBY
- ⑳ Témoin STANDBY (attente)
- ㉑ Touche DELAY TIME
- ㉒ Touche TAPE COPY
- ㉓ Touche VCR1 COPY
- ㉔ Touche BASS EQ
- ㉕ Touche DSP MODE
- ㉖ Capteur infrarouge (IR SENSOR)
- ㉗ Affichage des caractères
- ㉘ Touches de sélection de fonction
- ㉙ Touche DISPLAY OFF
- ㉚ Touche MUTING (silence)
- ㉛ Commande de VOLUME
- ㉜ Prises d'entrée AUX



**Abbildung 1** Geräterückseite

- ① CD IN JACKS (CD-Eingangsbuchsen)
- ② TUNER IN JACKS (Tuner-Eingangsbuchsen)
- ③ TAPE IN/OUT JACKS  
(Cassettendeck-Eingangs-/Ausgangsbuchsen)
- ④ DCC IN/OUT JACKS  
(DCC-Recorder-Eingangs-/Ausgangsbuchsen)
- ⑤ LD IN (AUDIO) JACKS (LD-(Audio)-Eingangsbuchsen)
- ⑥ DBS IN (AUDIO) JACKS  
(DBS-(Audio)-Eingangsbuchsen)
- ⑦ VCR1 IN/OUT (AUDIO) JACKS (Videorecorder-  
(Audio)-Eingangs-/Ausgangsbuchsen)
- ⑧ VCR2 IN/OUT (AUDIO) JACKS (Videorecorder-  
(Audio)-Eingangs-/Ausgangsbuchsen)
- ⑨ FRONT OUTPUT JACKS (Front-Ausgangsbuchsen)
- ⑩ CENTER OUTPUT JACKS (Mitten-Ausgangsbuchsen)
- ⑪ SURROUND OUTPUT JACKS  
(Surround-Ausgangsbuchsen)
- ⑫ LD IN (VIDEO/S-VIDEO) JACKS (LD-(Video/S-Video)-  
Eingangsbuchsen)
- ⑬ DBS IN (VIDEO/S-VIDEO) JACKS  
(DBS-(Video/S-Video)-Eingangsbuchsen)
- ⑭ VCR1 IN/OUT (VIDEO/S-VIDEO) JACKS (VCR1-  
(Video/S-Video)-Eingangs-/Ausgangsbuchsen)
- ⑮ VCR2 IN/OUT (VIDEO/S-VIDEO) JACKS (VCR2-  
(Video/S-Video)-Eingangs-/Ausgangsbuchsen)
- ⑯ TV MONI. (VIDEO/S-VIDEO) OUTPUT JACKS  
(Fernsehgerät-(Video/S-Video)-Ausgangsbuchsen)
- ⑰ REMOTE CONT. IN/OUT TERMINALS  
(Fernbedienungsgeber-Eingangs-/Ausgangs-  
anschlüsse)
- ⑱ POWER CABLE (Netzkabel)

**Abbildung 2** Gerätevorderseite

- ⑲ POWER/STANDBY-Schalter  
(Netzscharter/Bereitschafts-Taste)
- ⑳ STANDBY INDICATOR (Bereitschafts-Anzeige)
- ㉑ DELAY TIME BUTTON (Verzögerungszeit-Taste)
- ㉒ TAPE COPY BUTTON (Cassetten-Kopier-Taste)
- ㉓ VCR1 COPY BUTTON (Videorecorder-1-Kopier-Taste)
- ㉔ BASS EQ BUTTON (Baß-Equalizer-Taste)
- ㉕ DSP MODE BUTTON (DSP-Modus-Taste)
- ㉖ INFRARED SENSOR (Infrarot-Sensor)
- ㉗ Zeichen-Display
- ㉘ FUNCTION SELECTOR SWITCHES  
(Funktionswahlschalter)
- ㉙ DISPLAY OFF BUTTON (Display-Aus-Taste)
- ㉚ MUTING BUTTON (Stummschaltungs-Taste)
- ㉛ VOLUME CONTROL (Lautstärkeregler)
- ㉜ AUX INPUT JACKS (Zusatzgerät-Eingangsbuchsen)

**Figura 1** Pannello posteriore

- ① Jack CD IN
- ② Jack TUNER IN
- ③ Jack TAPE IN/OUT
- ④ Jack DCC IN/OUT
- ⑤ Jack LD (AUDIO)
- ⑥ Jack DBS IN (AUDIO)
- ⑦ Jack VCR1 IN/OUT (AUDIO)
- ⑧ Jack VCR2 IN/OUT (AUDIO)
- ⑨ Jack FRONT OUTPUT
- ⑩ Jack CENTER OUTPUT
- ⑪ Jack SURROUND OUTPUT
- ⑫ Jack LD (VIDEO/S-VIDEO)
- ⑬ Jack DBS IN (VIDEO/S-VIDEO)
- ⑭ Jack VCR1 IN/OUT (VIDEO/S-VIDEO)
- ⑮ Jack VCR2 IN/OUT (VIDEO/S-VIDEO)
- ⑯ Jack di uscita TV MONI (VIDEO/S-VIDEO)
- ⑰ Terminali REMOTE CONT. IN/OUT
- ⑱ Cavo di alimentazione

**Figura 2** Comandi del pannello anteriore

- ⑲ Interruttore POWER/STANDBY
- ⑳ Spia STANDBY
- ㉑ Tasto DELAY TIME
- ㉒ Tasto TAPE COPY
- ㉓ Tasto VCR1 COPY
- ㉔ TASTO BASS EQ
- ㉕ Tasto DSP MODE
- ㉖ Sensore infrarossi (IN SENSOR)
- ㉗ Display alfanumerico
- ㉘ Selettori funzioni
- ㉙ Tasto DISPLAY OFF
- ㉚ Tasto MUTING
- ㉛ Regolazione VOLUME
- ㉜ Jack di ingresso AUX

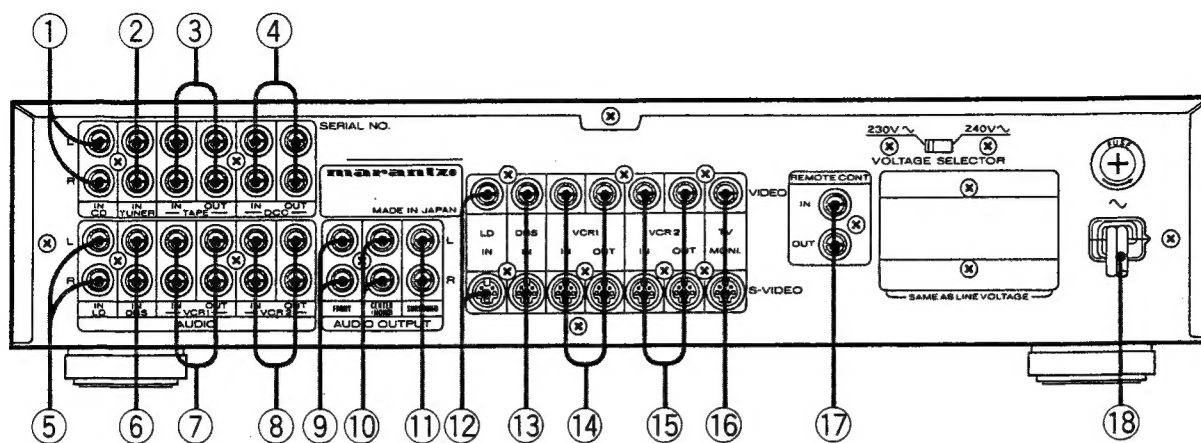


Figure 1 Rear panel

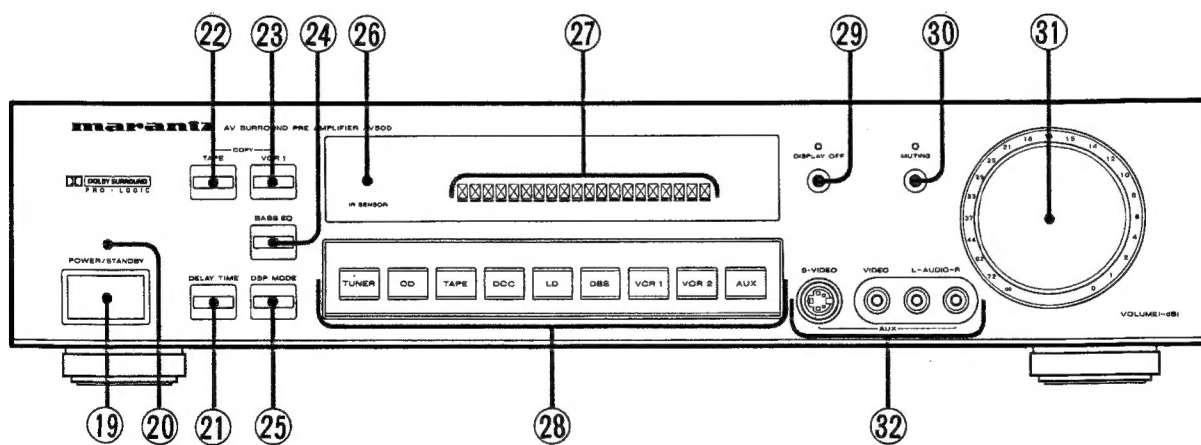


Figure 2 Front panel controls